FACTORS THAT CONTRIBUTE TO LONG WAITING TIME FOR EMERGENCY CENTRE PATIENTS: A WAITING ROOM CASE STUDY OF PAARL HOSPITAL, WESTERN CAPE

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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

Background: Long waiting time for patients at emergency centres globally is having a negative impact on service delivery to patients and family members. The aim of this study was to explore and investigate factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa. The objectives of the study were to elicit patients, family members, medical and nursing management as well as healthcare staff experiences, concerns and proposals to improve waiting time at the emergency centre. The Health Research Ethics committee at Stellenbosch University gave approval for the study as did the Western Cape Government Health and the Chief Executive Officer of Paarl Hospital to conduct the study at the emergency centre.

Methods: A multi-method case study design with a qualitative descriptive approach was used by conducting in-depth individual interviews with patients, family members, healthcare staff and interviews with key role players from the emergency centre. A total of (n=18) participants took part in the study. A self-developed, semi-structured interview guide with open-ended questions and probes were used during data collection. Member checking took place during interviews by clarifying and summarizing participants' information during interviews. Qualitative data analysis was applied to the transcripts, which were coded for emerging themes. Five main themes emerged during data analysis. The first theme, 'The system that keeps us in the waiting game' was around the factors that contribute to long waiting time at the emergency centre. The second theme, 'The waiting room puzzle' focused on participant's experiences of being puzzled and confused about long waiting time. The third theme, 'The waiting game drain' emerged from the draining effect that the long waiting time has on healthcare staff working in the emergency centre. The fourth theme, 'The rules for the waiting game' encompassed the conceptual-framework driving healthcare which emerged during data collection and which was developed for this research study. The final theme, 'The waiting game plan' presents proposals from all participants to improve long waiting time at the emergency centre.

Results: The findings of the study showed as in other studies that a shortage of staff and patient overload contribute to long waiting time. In addition, the study also found that inefficiencies in patient flow and inappropriate use of the emergency centre are causes that contribute to long waiting time for patients at the emergency centre. The recommendations are to align the emergency centre healthcare staff to the needs of the community. Presently, given the shortage of healthcare staff, the capacity to manage patients at the emergency centre is compromised. Discussions are required with District health services to render

24-Hour services to patients at a clinic or community health centre, where services are currently only rendered on weekdays until 16h00 and not over weekends or public holidays. Patient flow should be analysed and quality improvement systems such as Lean explored for efficiency gains. Education of patients and family members on triage and the appropriate use of the emergency centre is required. The expectation is that with this knowledge, waiting time will improve for patients needing emergency care.

Key words: Patients, waiting time, emergency centre, triage

OPSOMMING

Agtergrond: Lang wag tye vir pasiënte by nood eenhede wêreld wyd het ‘n negatiewe invloed op dienslewering aan pasiënte en familie lede. Die doel van die studie was om te verken en te ondersoek die faktore wat bydra tot lang wagtye vir pasiënte by die nood eenheid van ‘n Streeks hopitaal in die Wes-Kaap, Suid-Afrika. Die doelwitte van die studie was om pasiënte, familie lede, bestuurs lede asook gesondheids personeel se ondervindinge, bekommernisse en ook voorstelle vir verbetering van wagtye by die noodeenheid te ontlok. Die Gesondheids Navorsings Etiek komitee van Universiteit van Stellenbosch het toestemming vir die studie verleen asook die Wes-Kaapse Regering van Gesondheid en die Hoof Uitvoerende Beampte van Paarl Hospitaal om die studie by nood eenheid te doen.

Metode: ‘n Multi-metode gevalle studie met ‘n kwalitatiewe beskrywende benadering is gevolg. ‘n Totaal van (n=18) persone het deelgeneem aan die studie. ‘n Self ontwikkelde, semi-gestruktueerde onderhouds gids met oop einde vrae asook ondersoekende vrae was gebruik tydens data insameling. Deelnemer kontrole het tydens onderhoude plaasgevind deur uit te klaar en saam te vat wat die deeelnemer gesê het gedurende die onderhoud. Kwalitatiewe data analise was toegepas met die transkripsies, waarna kodering plaasgevind het om temas te identifiser. Vyf hoof temas het na vore gekom tydens data analise. Die eerste tema, ‘Die sisteem wat ons in wagtye spel plaas’, gaan rondom faktore wat bydrae tot lang wag tye by die noodeenheid. Die tweede tema ‘Die wag kamer legkaart’, fokus op deelnemers se ondervindinge waar hulle verward en deurmekaar is oor die lang wag tye. Die derde tema, ‘Die wagtye spel dreinering’, het na vore gekom a.g.v. die dreinerings effek wat die lang wag tye op die gesondheids personeel van die noodeenheid het. Die vierde tema, ‘Die reëls vir die wagtye spel’, omvat die konseptuele raamwerk wat gesondheidsorg dryf en wat na vore gekom het tydens data insameling en ontwikkel was vir die studie. Die finale tema, ‘Die wagtye speel plan’ voorsien voorstelle van al die deelnemers om wagtye by die noodeenheid te verbeter.

Resultate: Die bevindinge van die studie dui daarop soos in ander studies dat ‘n tekort aan personeel en pasiënt oorlading bydra tot lang wagtye. Verder het die studie ook bevind dat, ontoereikende pasiënte vloei en ontoepaslike gebruik van die noodeenheid, faktore is wat bydra tot die lang wag tye van pasiënte. Die aanbevelings is dat gesondheidsorg personeel in lyn gebring word met die behoeftes van die gemeenskap. Huidiglik, gegewe die tekort aan gesondheidsorg personeel, word die kapasitiet om pasiënte te behandel by die noodeenheid, in gedrang gebring. Besprekings is nodig met Distrik gesondheids dienste om ‘n 24-uur diens vir pasiënte by ‘n kliniek of gemeenskaps gesondheids sentrum te lewer waar klinieke slegs

oop is tot 16h00 en nie oor naweke of publieke vakansie dae nie. Pasiënt vloei moet geanaliseer word en kwaliteits verbeterings sisteme soos ‘Lean’ moet ondersoek word om ondoeltreffendheid van pasiënt vloei aan te spreek. Opvoeding aan pasiënte en familie oor triage en die gebruik van noodeenheid vir die korrekte doel, is ook nodig. Die verwagting is dat met die kennis, wagtye by die noodeenheid sal verbeter vir pasiënte wat nood behandeling benodig.

Sleutelwoorde: Pasiënte, wagtye, nood eenheid, triage

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ABBREVIATIONS AND ACRONYMS

CEO	CHIEF EXECUTIVE OFFICER
COSMOS	COMMUNITY SERVICE MEDICAL OFFICERS
EC	EMERGENCY CENTRE
LWT	LONG WAITING TIME
NCS	NATIONAL CORE STANDARDS
NDOH	NATIONAL DEPARTMENT OF HEALTH
NHI	NATIONAL HEALTH INSURANCE
OOHSC	OFFICE OF HEALTH STANDARDS COMPLIANCE
WCGH	WESTERN CAPE GOVERNMENT HEALTH
WHO	WORLD HEALTH ORGANISATION

CHAPTER 1
FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Patients and family members have a huge concern on long waiting time at emergency centres in South Africa and globally (Moses, 2015:2; Espicito, 2015:8). A study done at a rural emergency centre in the Limpopo province, South Africa found that the volume of patients, inefficiencies at registration and the triage process are factors that contributed to lengthy waiting time (Cimona-Malau, 2011:593). Furthermore, Van Wyk and Jenkins (2014:2) reveals in their study at George hospital in the Eden and Central Karoo province, South Africa, patients seek care at emergency centres because primary care facilities provide limited hours of care.

With the lengthy wait at emergency centres comes dissatisfaction from patients and family members (Fokazi, 2013:6). Subsequently, long waiting time can have negative outcomes on patient care (Duckett & Nijssen-Jordan, 2012:29). Negative outcomes include, patients leaving the emergency centre without been seen, thus putting them at risk for potential harm. Another risk is that patients waiting long in the emergency centre may not get the necessary treatment timeously, leading to a deterioration in their condition. Waiting time can be defined as the length of time from when the patient enters the hospital at the emergency centre until the time the patient leaves the hospital or is admitted to a ward (Dinesh, Sanjeev & Nair, 2013:1). Long waiting time (LWT) also contributes to the fact that patients leave the emergency centre without being seen (Hsia, 2012:34).

In 2008, the South African Triage Scale (SATS) was implemented in hospitals across South Africa, with the aim to improve the management of patients who are critically ill (South African Triage Scale – Training manual, 2012:7). Triage, derived from the French word “trier”, means “to sort” (South African Triage Scale – Training manual, 2012:3). Thus, patients are sorted according to different triage categories and should be managed according to the seriousness of their condition. The following triage categories are used in the emergency centres in South Africa. Triage category red for emergency management of patients; Triage category orange for urgent management of patients; Triage category yellow for management of patients in the treatment room; Triage category green for referral of patients for potential streaming and Triage category blue where the patient is deceased and refer to the doctor for certification (SATS, 2012:7).

Strategies such as the triage system have been employed to decrease waiting time at emergency centres in South Africa and abroad but the problem still continues (Ajami, Ketabi, Yamohammadian & Bagherian, 2012:53; South African Triage Scale – Training manual, 2012:1). Pascasie and Mtsali (2012:178) found that long waiting time intensifies the frustration of healthcare staff that are exposed to patients' verbal abuse and violence during the long waiting period at emergency centres.

Therefore, the researcher explored and investigated factors that contribute to long waiting time for patients at the emergency centre of a regional hospital in the Western Cape, South Africa. This chapter provides a background to the study, the rationale for this research, the aim of the study, the research questions and methodology. Further explanation of the operational definitions will be given as well as the outline of the proposed chapters, followed by the conclusion.

1.2 SIGNIFICANCE OF THE PROBLEM

This research is a response to the concern by clients, Paarl Hospital Senior Management, Hospital Facility Board (HFB), family members and healthcare staff regarding long waiting time (LWT) for patients at the emergency centre. Patient and family member's complaints were received on a daily basis regarding LWT, which and has led to dissatisfied customers (See Appendix 13); (Moses, 2015:15).

The quadruple burden of disease in the Western Cape, such as HIV/Aids and Tuberculosis, violence and road traffic accidents, non-communicable diseases, and women and childhood illnesses, accounts for the burden placed on emergency centres (Healthcare 2030, 2013:4). Factors deemed to influence long waiting time at emergency centres in the Western Cape are non-urgent and non-life threatening injuries or illnesses visiting the emergency centre (Mbombo, 2015:12). The Western Cape Government Health (WCGH) set out a strategy in 2014 to improve the patient experience by implementing Departmental Standards for Emergency Services (Circular H 44/2014). Aacharay, Gastmans and Denier (2011:1) hold that the four dimensions of care, i.e. 'caring about'; taking care of; 'actual care giving' and 'care receiving' are important aspects in the delivery of medical care at emergency centres.

This study intended to explore and investigate factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa. The input given by patients, family members, clinical and nursing management and healthcare staff can be of great value in finding possible improvement initiatives to decrease long waiting time at the emergency centre of Paarl hospital.

In addition, a key factor in improving quality of service is to hear the voice of the patient and community, thus getting the necessary feedback from the clients (Mbombo, 2015:15). Hall, (2010:17) further holds that when patients are treated like unique individuals and keeping them updated during the long waiting time, patient satisfaction might increase.

1.3 RATIONALE

The rationale for this study is based on the National Core Standards (NCS) for Health Establishments in South Africa (National Department of Health, 2011), which has been developed to improve service delivery to the public. Within the National Core Standards, six fast track priorities have been identified which relate directly to patient care (Lourens, 2013:2). The first priority is regarding patient rights of which waiting time is an area to be addressed.

Literature shows factors that contribute to long waiting time globally are heavy patient caseloads, non-urgent cases visiting the emergency centre and limited access to primary healthcare services after hours (Van Wyk & Jenkins, 2014:5; Geelhoed & de Klerk, 2012:122). The emergency centre at Paarl hospital has an annual census of more than 41 000 patient visits per year and an average of approximately 120 visits for a 24-hour period (Paarl Hospital emergency centre, 2011-2015).

Therefore, this study investigated factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa. In addition, no previous case study was done at Paarl hospital after the new revitalised emergency centre was taken into usage to evaluate if service delivery regarding long waiting time has improved.

1.4 EMERGENCY CENTRE OF PAARL HOSPITAL AS CASE STUDY

Paarl hospital emergency centre (EC) was the setting for this case study. The patients, family members, clinical and nursing management, and healthcare staff who experienced the long waiting time at the emergency centre, and related documents pertaining to long waiting time, were the components of this case study. The researcher wanted to gain an understanding of factors that contribute to long waiting time (LWT) for patients at the EC of Paarl Hospital.

The EC at Paarl hospital was upgraded in 2007 and again in during 2009 in order to deliver emergency services during the 2010 Soccer World Cup (Lourens, 2015:6). The majority of patients do not have medical insurance and are uninsured.

Figure 1: Location Paarl hospital and service towns

(Source: http://maps.google.co.za/maps 2016, July 10)

Specialist services which include internal medicine, surgery, orthopaedics, obstetrics, psychiatry, theatre unit, high care unit and a specialist outpatient department renders services to the community of Paarl, Wellington and Franschhoek. The EC also receive referrals from other rural areas as far as Citrusdal, Clanwilliam and Vredendal in the West

Coast Health District with a travelling time of approximately four hours (See Figure 1: Location of Paarl hospital and service towns).

When entering the emergency centre, the patients obtain a time stamp from the security staff. However, during data collection, the time stamp was broken and they were then directed to the triage nurse, where the necessary observations were done according to the triage scale. After the triage process, depending on the triage score, the patient is given a time paper sheet and sent to the registration office for a folder or taken by the triage nurse to the treatment room for attention.

Furthermore, when the registration process is completed, the file is given to the triage nurse, after which the patient is sent to the waiting room. Two waiting rooms are available at the emergency centre: one for patients and one for family members. Patients wait in the waiting room to be seen by a health professional when his/her name is called on the intercom system. They are then referred to a specialist, discharged, sent for diagnostic tests and procedures, admitted, or referred to a tertiary health facility. Patients that arrive at the emergency centre in an ambulance are directed to the treatment room to receive the necessary treatment. Depending on their triage category score in the treatment room, they are either kept there for treatment or directed to the waiting room.

1.5 RESEARCH PROBLEM

The researcher, who is an Assistant Nurse Manager at a regional hospital in the Western Cape, South Africa, observed the long waiting time at the emergency centre during Nursing Management handover meetings in the morning and afternoon. Verbal and written complaints from patients and relatives also indicated dissatisfaction and delay of care in the long waiting time at the emergency centre. The average waiting time for patients was recorded as more than seven hours, which is almost double the hours of what is expected for green patients (Paarl Hospital triage waiting-time statistics, 2015:25).

Further observation yielded evidence that heavy patient loads, primary healthcare cases treated at the emergency centre and limited available inpatient beds, were factors contributing to lengthy waiting time. The problem of the long waiting time was also mentioned by the CEO of the facility at a Hospital Facility Board (HFB) meeting held in October 2012, where the waiting times for triage category green patient were sometimes 24-hours (HFB, 2012). The problem of the long waiting time was again highlighted at a strategic planning workshop with Top management as a strategic objective to improve upon (Kruger, 2015:9).

Improving waiting time at healthcare facilities and rendering quality patient-centred care are some of the key focus areas of the NDoH and the WCGH. Improvement initiatives to improve

waiting time, such as the South African Triage Scale (SATS) have been implemented, but the problem persists. Rendering timely care at the emergency centre is thus of great importance in order to improve service delivery and to have a significant impact on patient care (Duckett & Nijssen - Jordan, 2012:29). For these reasons, research is required to investigate factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa.

1.6 RESEARCH QUESTION

Why is there long waiting time for patients at the emergency centre of a Regional hospital in the Western Cape, South Africa?

1.7 RESEARCH AIM

The aim of the study is to gain an understanding of factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa.

1.8 RESEARCH OBJECTIVES

The objectives of the study are:

- To describe the patient perspective on factors that contribute to long waiting time at the emergency centre
- To determine patient concerns about long waiting time at the emergency centre
- To describe the staff experiences and their perceptions of factors that contribute to long waiting time
- To review patient records, client satisfaction surveys, triage waiting time statistics, hospital statistics, NCS audit reports, strategic planning report, compliments and complaints register as well as minutes of meetings pertaining to long waiting time.
- To recommend possible improvement initiatives to address long waiting time.

1.9 RESEARCH METHODOLOGY

For this study, the research methodology will be described and discussed in detail in Chapter 3, but a brief outline follows below.

1.9.1 Research design

A multi-method case study design with a qualitative descriptive approach was used to determine factors that contribute to long waiting time for patients at the emergency centre of

Paarl Hospital. Merriam (1998:27) defines a qualitative case study as an intensive, holistic description and analysis of a single instance, phenomenon or single unit.

Burns and Grove (2011:253), note that the research design is the “blueprint for conducting a study”. According to Yin (2014:1) a case study “should be considered when the focus is to answer how and why questions”. For this study, the question was thus: “Why is there long waiting time for patients at the emergency centre of Paarl Hospital?” Utilizing the case study approach was an appropriate design for this study as “case study research investigates a contemporary phenomenon in its real world context” that may have an impact on the situation being studied (Yin, 2014:1).

In addition, Brink, (2010:110) notes that in case studies different approaches and sources are used to collect and analyse data, which include questionnaires, interviews, observations, and written elucidations. Therefore, in this study, sources of evidence included interviews with patients; family members; clinical and nursing management and healthcare staff; as well as document reviews originating from questions on client satisfaction, triage waiting time statistics, National Core Standard audit reports and minutes of meetings.

1.9.2 Study setting

Burns and Grove (2011:40) define the setting as the “location where a study is conducted”. The setting was the emergency centre of a Regional hospital in the Western Cape, South Africa. In addition, Baxter and Jack (2008:545), describe the unit of analysis as a “phenomenon of some sort occurring in a bounded context”. The unit of analysis is thus an investigation of factors that contribute to long waiting time for patients at the emergency centre of Paarl Hospital.

Paarl Hospital is a semi-rural area and is situated 60 km away from Cape Town. It is a public hospital with 311 beds. In 2009, the emergency centre was revitalised in order to deliver emergency care during the Soccer World Cup in 2010 (Lourens, 2015:5).

The emergency centre has an annual census of approximately 3300 visits per month (Paarl Hospital, 2011-2015) and is the only public hospital that renders 24-hour emergency services to the population of Paarl, Wellington and Franschhoek. The total number of staff at the emergency centre is 81 and includes day and night staff. See breakdown in Table 1 on page 9.

1.9.3 Population and sampling

The research population included different categories of role players from the emergency centre i.e. patients, family members who visited the emergency centre as well as medical and nursing management and healthcare staff working in the emergency centre.

A total sample size of (n=18) were included in the study which comprised of (n=6) patients; (n=4) family members; (n=3) medical and nursing management staff and (n=5) healthcare staff. Purposive and convenience sampling were used to recruit participants.

Inclusion criteria were patients triage category orange, yellow and green as well as family members who waited more than four hours with their sick or injured relative at the emergency centre during the study period. Clinical and nursing management as well as healthcare staff working on the fixed establishment in the emergency centre were also included.

Arrangement to access relevant documents pertaining to long waiting time was made with the relevant role players who collected and manage the specific documents at the hospital, i.e. Chief Executive Officer, Occupational Health Practitioner and the Hospital Facility Board Chair person. Documents included i.e. patient records to evaluate triage coding, time of arrival and discharge (waiting time), client satisfaction surveys, triage waiting time statistics, hospital statistics, National Core Standard (NCS) audit reports, the strategic planning report, compliments and complaints register as well as minutes of meetings concerning long waiting time.

Patients with triage category red were excluded from the study due to ethical reasons as these patients are critically ill. The exclusion criteria also pertained to children under 18 years and mental healthcare patients, due to their vulnerable status and diminished autonomy.

1.9.4 Data collection tools

The data collection tool included an opening question with probes. The opening question was; “How do you experience the service at the emergency centre of Paarl Hospital?” According to Brink, (2008:152) probes are the clarification of questions to encourage participants to elaborate on the topic under study.

Individual interviews were conducted by the principle researcher and fieldworker with participants who voluntarily agreed to be interviewed and who gave informed written consent for the interviews. The researcher conducted interviews with patients, family members and medical and nursing management.

A self-developed open-ended semi-strutured interview guide were used based on the objectives of the study (See Appendix 6). The interview guide was decided upon after the proposal presentation to the nursing research staff at Stellenbosch University.

Table 1: Emergency centre staff component

UNIT	FUNCTION	STAFF NUMBER	TOTAL
Medical Doctors	Head Clinical Unit	1	
	Specialist Emergency Medicine	2	
	Clinical Manager	1	
	Medical Officers	7	
	Community Medical Officers	3	14
Nursing	Assistant Nursing Manager	1	
	Registered Nurses	18	
	Community Registered Nurses	2	
	Enrolled Nurses	14	
	Auxiliary Nurses	14	49
Housekeeping (Agency contract workers)	Housekeepers	2	
	Household cleaners	12	14
Administration	Clerks	3	3
Queue Marshall		1	1
TOTAL			**81**

Acknowledgement: Emergency Centre Specialist

The fieldworker conducted interviews with emergency staff. The reason for using a fieldworker was that the principle researcher was employed in a managerial position at the hospital. A Xhosa translator was also at hand for isiXhosa speaking participants to translate. A self-developed open-ended semi-strutured interview guide were used (See Appendix 6).

In addition, patient medical records were evaluate the triage coding and time of arrival and discharge (waiting time) of patients at the emergency centre. Client satisfaction surveys were also scrutinised to grasp patients' feedback on waiting for services as well as triage waiting time statistics. Hospital statistics; NCS audit reports; strategic planning reports; the compliments and complaints register; and, minutes of meetings, were reviewed.

1.9.5 Pilot interviews

Two pilot interviews, consisting of one individual interview by the principle investigator and one by the fieldworker, were conducted with participants who met the criteria of the study. The pilot interviews assisted both investigators in their preparation for the formal interviews.

The data from the pilot interviews were included in the main study to intensify the voice of the participants.

1.9.6 Trustworthiness

Trustworthiness is referred to as the rigor in qualitative research (LoBiondo - Wood & Haber 2010:128). They further state “the rigor of qualitative research is judged by unique criteria appropriate to the research approach”. The researcher thus strived for high credibility by presenting accurate data collected during the data collection process. Criteria to ensure trustworthiness in case study research, as proposed by Guba and Lincoln in 1985, are credibility, transferability, dependability and conformability (Brink, 2010:119). The application of these aspects to this study will be explained below.

Credibility refers to the truth of findings as judged by participants (LoBiondo-Wood & Haber, 2010:119). Shenton (2004:64) further notes that, to test for credibility, the question should be asked, “How congruent are the findings with reality?” Discussions with the supervisor, fieldworker as well as other specialists to gain clarity on the research topic followed. This assisted with the credibility of the study, where different viewpoints were verified against others.

Credibility was further enhanced with the process of triangulation where multiple sources of data such as compliments and complaints statistics and client satisfaction surveys were used. Member checking also enhanced credibility. Doyle (2007) cited in Carlson (2010:1105) holds that member checking is where “participants validate the data they provided during the interview”. Member checking were done with two participants respectively after the interviews. Due to logistical reasons not all participants could be done.

Transferability refers to the extent to which findings from one study can be applied to other situations (Stenton, 2004:70)**.** The researcher is optimistic that sufficient information on the event under study can provide an understanding of the factors that contribute to long waiting time at the emergency centre of Paarl hospital. Although each setting is unique, readers that find this study similar to their situation may relate it to their own position (Stenton, 2004:69).

Dependability is another criteria proposed by Guba and Lincoln cited (Brink, 2008:119) to establish the trustworthiness and requires review. For this study, the data collection and analysis were verified by the academic supervisor. The researcher and the academic supervisor listened to the audio recordings. Transcripts were reviewed and thematic coding during data analysis was verified.

Conformability refers to the process where findings and recommendations are supported by data collected and there is congruency between the researcher's interpretation and the result of the perspectives and ideas of the participants (Stenton, 2004:72). This was done by clarifying data with participants so that they could clarify their perspectives on the topic under study by using probes in the interviews.

1.9.7 Data collection

1.9.7.1 Data collection: patients and family members

The principle investigator carried out individual interviews with the triage level orange, yellow and green participants and family members, based on the objectives of the study. Interviews with family members were carried out in a private office in the emergency centre while they were waiting for their sick or injured relative.

Informed written consent was obtained by the researcher from the convenience selected participants at the hospital. A digital voice recorder was used to capture relevant data. An interpreter was used for translation in Xhosa if requested by participants. Participants who voluntarily indicated their willingness to participate and who fit the inclusion criteria were interviewed in a private office in the emergency centre while they were waiting to be seen by the doctor, waiting on blood results and waiting for the pharmacy to open. Agreement was reached between participants (patients) and the researcher to stop the interview when the participant needed to be seen by the doctor.

The study was carried out over three months from 1 March 2016 to 31 May 2016. Data was collected by the researcher and fieldworker on a Monday, Wednesday, and Friday, on two weekends, and on two public holidays between 12h00 and 24h00.

1.9.7.2 Data collection: medical and nursing management

Individual interviews with the medical and nursing management of the emergency centre were carried out by the principal investigator after informed consent was granted. Two interviews were held in the office of the researcher and one interview in the medical manager's office on an appointment basis, at a time convenient to them.

1.9.7.3 Data collection: healthcare staff

Individual interviews with healthcare staff of the emergency centre were carried out after informed consent had been granted by them to the fieldworker. The reason for using a fieldworker was that the principle investigator works in a managerial position at the hospital. The fieldworker, who is a professional nurse working for an external agency, thus conducted the staff interviews. She was trained to do the interviews by the supervisor and researcher.

Interviews were conducted in their off days or after their working hours at a time that was convenient for them, as not to compromise patient care.

1.9.7.4 Data collection: documents reviews

Bowen (2009:27) states that document reviews is a method of examining and reviewing data in order to elicit meaning and gain understanding of the phenomenon under study. He further holds that by drawing upon multiple sources of evidence, credibility can be enriched (Bowen, 2009:28). Credibility of documents and relevant statistics were ensured as these documents were produced and collected by third parties beforehand. None of the documents was created to benefit this research study. Arrangements to collect documents were done with different role players in advance.

The following documents were reviewed and analysed as part of the data set: patient records to see triage coding; time of arrival and discharge (waiting time); client satisfaction surveys (CSS); triage waiting-time statistics; hospital statistics; National Core Standard (NCS) audit reports; the strategic planning report; compliments and complaints register; as well as minutes of meetings relating to long waiting time.

1.9.8 Data analysis

According to Yin (2014:142), the type of analysis involved will depend on the type of case study. Yin further describes pattern matching, linking data to propositions, and explanation building, as some of the techniques used for analysis. With the assistance of the supervisor and fieldworker, ideas and concepts of data collected were discussed, matched and mapped out as well as how they were interrelated.

Baxter and Jack (2008:555) noted that in a case study the researcher must ensure that there is congruency between different data collection sources in order to understand the overall case. The researcher included her supervisor in order to provide feedback on the integration of data sources.

In addition, triangulation was also used in the study. Triangulation is described by LoBiondo-Wood and Haber (2010:119) as the collection of different kinds of data about a single phenomenon. Triangulation combines the use of multiple data sources for example participants, documents reviews and statistics in order to address the problem of long waiting time. The triangulation strategy thus enriched the understanding of factors that contribute to long waiting time at the emergency centre of Paarl hospital.

1.10 ETHICAL CONSIDERATIONS

The ethical principles of the right to self-determination, confidentiality, anonymity, the right to protection from discomfort and harm and the right to informed consent will be adhered to (Burns & Grove, 2011:118). Permission to undertake the research was obtained from the Health Research Ethics Committee of Stellenbosch University - Ethics Reference Number: S15/10/257 (See Appendix 1(i) and 1(ii). Approval to conduct the research at a public health facility emergency centre was also obtained from the Western Cape Government Health (See Appendix 2). Informed consent as well as permission to use a digital recorder was obtained from each participant. Participants were not compelled to take part in the study and were informed that they may withdraw from the study at any time.

Participants were assured anonymity and confidentiality by not mentioning their names during data analysis. No emotional or physical harm was anticipated by participation in the study. However, a professional colleague was on standby should participants (patients) have needed assistance. A telephone was available in the private office where interviews was conducted. None of the participants (patients) needed assistance. Confidentiality and anonymity are further ensured as the digital recordings, interview transcripts, field notes and an electronic data storage device are locked away in a secure office of the researcher's home.

Further approval was obtained from the Chief Executive Officer (CEO) of Paarl Hospital where the research was undertaken. Information sessions were held with the CEO and staff to inform them of the purpose of the research. The research was guided by the ethical principles of self-determination, confidentiality and anonymity, protection from discomfort and harm, and informed written consent, which will be discussed below.

1.10.1 Right to self-determination

The right to self-determination supports the ethical principle of respect for people. Burns and Grove (2011:110) states that self-determination is where a participant is allowed to make a free and informed decision to take part in a study without been coerced. In addition to the verbal explanation regarding the study, written information was also provided to participants about the study. Participant's right to self-determination was respected as they had the right to decide voluntarily if they wanted to participate in the study.

1.10.2 Right to confidentiality and anonymity

To protect the human rights of participants, confidentiality, privacy and anonymity were ensured. Burns and Grove (2011:535) describe confidentiality as the management of private data in research where only the researcher knows the identities of the participants and can

link them with their responses. Confidentiality was further guaranteed by giving each participant a number, for example, an interview was coded as family member 1. The researcher ensured anonymity of the participants by not mentioning the names of participants in the findings (Burns & Grove, 2011:532). Two professional transcribers were used and a confidentiality agreement was signed between them and the researcher which further ensured confidentiality.

1.10.3 Right to protection from discomfort and harm

High regard for participant's health and wellbeing, while participating in the study was ensured, as they have the right to be protected from discomfort and harm (Pera & Van Tonder, 2014:331). The researcher ensured that patients and other participants were comfortable before the interview commenced. A private office in the emergency centre was used during the study. The venue had comfortable seating and adequate light. Refreshments were available. No distress was experienced by any of the participants (patients). However, the assistance of a professional colleague from the emergency centre to be on standby was gained prior to individual interviews with participants (patients). A telephone was available to call the emergency centre or staff wellness crisis line if needed.

1.10.4 Informed written consent

According to Burns and Grove (2011:122) informed consent means participants are comprehensively informed about the study and are willingly agreeing to take part. Participation in the study was voluntary. Thorough and detailed information was given to participants so that they understood the reason for their participation. Informed written consent was obtained from all participants by the researcher and fieldworker before individual interviews were held. Informed written consent and information leaflets were available in Afrikaans, English and isiXhosa. The researcher and fieldworker were both fluent in Afrikaans and English. An isiXhosa translator was on standby should a participant indicate his/her need for one. Consent to digitally record the interviews was obtained from the participants before each interview commenced**.** Potential participants were also informed that they have the right to withdraw from the study at any time.

1.11 CONCEPTUAL FRAMEWORK

Patient satisfaction is central to the conceptual framework for this study. Legislative policies driving patient satisfaction and quality care in health facilities in South Africa and in the Western Cape, is the National Core Standards (NCS) for Health Establishments in South Africa: National Department of Health (NDoH) (2011), the 2030 Healthcare Strategy of the

Western Cape Department of Health (WCDH) with the emphasis on patient staisfafction and patient experience of care received.

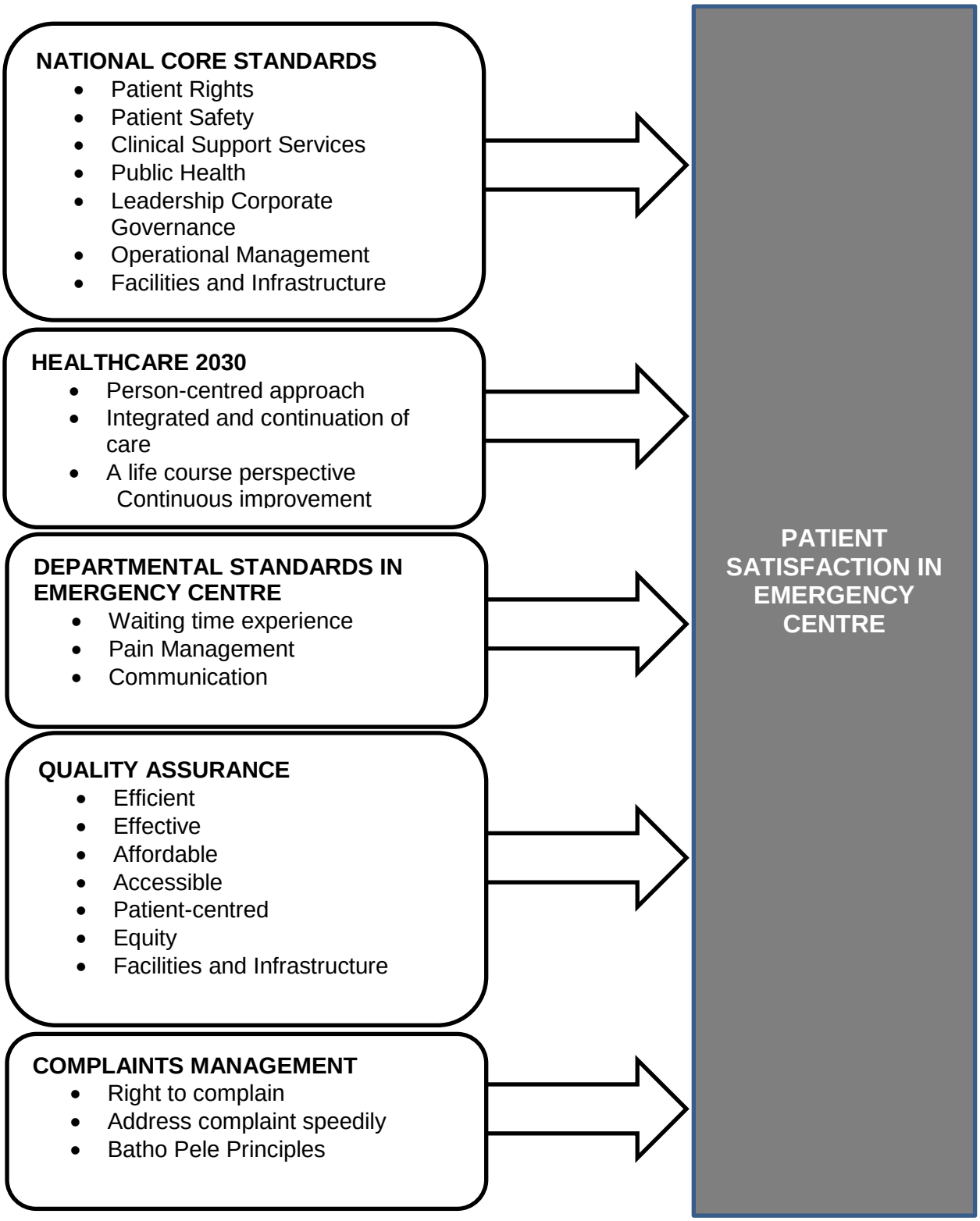

Figure 2: Conceptual framework – Researcher's own work

These legislature is seen as important strategies for the National Department of Health. Departmental Standards for Emergency Centres Circular H44/2014 where the focus is on Quality Assurance in the emergency centre as well as Complaints Management are other concepts steering patient satisfaction. This study aimed to apply the conceptual framework to adress the concern of long waiting time. In Figure 2 the conceptual framework is presented.

1.12 OPERATIONAL DEFINITIONS

To improve understanding in this research study the meaning of the following terms are explained:

Emergency centre: Emergency centre is a dedicated area within a health facility that is organised and administered to provide a high standard of emergency care to those in the community who perceive the need or are in need of acute or urgent care (Emergency Medicine Society of South Africa Practice Guideline, 2012:3).

Patient: One who is suffering from a disease or behavioural disorder and is needing treatment for it (Medical Dictionary, 2012).

Patient-centred care: Is where the focus is on the individual's personal needs, desires and goals so that they become central to the care (Draper & Tetley, 2013:15).

Patient satisfaction: Patient's opinion of care received (Medical Dictionary for the Health Professions and Nursing, 2012).

Regional Hospital: Is a public hospital in South Africa rendering 24 hour services in the field of internal medicine, gynaecology, general surgery, paediatrics as well as speciality services in orthopaedics, psychiatry, trauma and emergency services (Healthcare 2030:136).

Triage: Triage is defined as the process where patients are sorted with a scientific triage scale in order of urgency, so that the most serious cases are treated first (The South African Triage Scale -Training Manual, 2012:3).

Waiting time: Waiting time is defined "as the length of time from when the patient entered the health facility till the time the patient leaves the facility (Dinesh, Sanjeev & Nair, 2013:1).

1.13 DURATION OF THE STUDY

Ethics approval for this study was obtained from the Health Research Ethics Committee of Stellenbosch University in November 2015. Permission was granted from the Western Cape Government Health Department as well as from the CEO of Paarl Hospital to conduct the study at Paarl Hospital. The duration of data collection was over a three months from 1 March

2016 to 30 May 2016. Data analysis was done and the completed thesis submitted on 2 December 2016 for examination.

1.14 CHAPTER OUTLINE

Chapter 1 is an introduction and a background to the research. This includes the rationale, aim and objectives, research methodology and study outline.

Chapter 2 presents and discusses the literature review pertaining to factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa.

Chapter 3 presents an in-depth discussion of the research methodology for this study.

Chapter 4 presents the analysis of data with the results from the study.

Chapter 5 provides the discussion of the results, conclusions, recommendations and limitations identified in the study.

1.15 SIGNIFICANCE OF THE STUDY

This study is a response to the implementation of the National Core Standards for Health Establishments in South Africa, undertaken by the National Department of Health to improve service delivery to the patient (National Department of Health, 2011). In addition, the Western Cape Government Health set out a strategy in 2014 to improve the patient experience by implementing Departmental Standards for Emergency Services (Circular H 44/2014).

In order to contribute to the body of knowledge on waiting time, the study intended to explore and investigate factors that contribute to long waiting time for emergency centre patients at Paarl hospital. The input given by patients, family members, clinical and nursing management, and healthcare staff, can be of great value in finding possible improvement initiatives to decrease long waiting time at the emergency centre.

1.16 SUMMARY

This chapter gave a brief background and the motivation for this research study. The purpose was to introduce the topic regarding factors that contribute to long waiting time for patients at an emergency centre, outline the objectives, research methodology and ethical considerations of the study.

Factors contributing to long waiting time at emergency centres globally are described as to staff shortages, patient overload, inefficient patient flow and inappropriate use of emergency centres. The focus of this research study was to explore and investigate factors that

contribute to long waiting time for patients at one emergency centre of a regional hospital in the Western Cape, South Africa. In Chapter 2 the literature reviewed relating to the study will be discussed.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

In Chapter 1, the significance of the study was explained as well as the research aim and objectives for this study. Chapter 2 will focus on factors that contribute to long waiting time for patients at emergency centres in research studies on the international front, from an African context with a focus on Sub–Saharan Africa and in South Africa. In addition, discussions on legislative policies and quality pertaining to emergency care in South Africa and the Western Cape were also reviewed.

2.2 REVIEWING AND PRESENTING THE LITERATURE

The literature review process started in February 2015 when the researcher commenced her studies at the University of Stellenbosch. The aim of the literature review was to ascertain the latest research spanning the past 5-10 years on factors that contribute to long waiting time for patients at emergency centres globally, in Sub-Saharan Africa and in South Africa. In addition, databases of the following were used during this review: PUBMED, CINAHL, WHO website, the South African Department of Health website and the Western Cape Government Health website. A senior librarian at the University of Stellenbosch was consulted to ensure a thorough search of databases available through the library services and beyond.

2.3 FACTORS THAT CONTRIBUTE TO LONG WAITING TIME FOR EMERGENCY CENTRES PATIENTS: AN OVERVIEW

On the international front, in Sub-Saharan Africa and in South Africa long waiting times are experienced at emergency centres (Burkhari et al, 2014:68, Singer et al, 2011:1324). Waiting time can be defined as “the difference between the time of arrival for each patient at the emergency centre and the time the patient had contact with a medical doctor or nurse” (McGraig & Albert, 2014:439).

The following text looked at literature about factors that contribute to long waiting time for emergency centres patients internationally, in the Sub-Saharan context and in South Africa, before summarizing relevant aspects individually.

2.3.1 Factors that contribute to long waiting time for emergency centres patients: International stage

Globally, long waiting times at emergency centres are a problem. A study done in Toledo, Ohio in 2013 revealed that with an increase in time spent in the emergency centre, there was a decline in patient satisfaction (Parker & Marco, 2013:173). Karaca, Erbil and Özmen (2011:2) reported that Americans spent 37 billion hours per year waiting in emergency centres.

In India, Sreekala, Arpita and Varghese (2015:1) holds that the reason for extended waiting times for patients at emergency centres, are the wait for a specialist to make a decision. In the same way in the Netherlands, Elderman (2012:40) notes that another factor contributing to long waiting time for patients at the emergency centre, is when the doctor must wait for his supervisor or consult to arrive at the emergency centre.

According to the American College of Emergency Physicians (2011), factors that contribute to long waiting times at emergency centres can also be that the critically ill patients are seen first. The patients awaiting a bed in a unit can take up time from the nursing personnel preventing them from attending to new patients. Similar results were reported in a study in Canada (Waits for Emergency Department Care, 2012:29).

The effect of long waiting time at an emergency centre can have devastating results on patient outcomes. A study by Gutmann, Schull, Vermeulen and Stukel (2011:4) in Canada reveals that long waiting times at emergency departments are linked to an increased risk of hospital admission or death within seven days among non-admitted patients. Hing and Bhuiya (2012:1) found in their study that an increase in patient volumes at emergency centres resulted in lengthy waiting times and serious problems for patients such as myocardial infarction.

When family members are uninformed, there is the perception that waiting time is longer (Karaca, et al. 2011:2). Within emergency centres, different tools are used to direct patient care. In most countries, such a tool is the triage system, which is used to assess patients according to priority.

Triage can be defined as the process of deciding how seriously/sick or injured a person is, so that the most serious cases can be treated first (Oxford Advanced Learners Dictionary, 2011:1594). According to Christ, Grossmann, Winter, Bingisser and Platt (2010:892) different triage systems are used in emergency centres globally to assess patients and assign priority care depending on the seriousness thereof such as the Australasian Triage Scale and the

Canadian Triage and Acuity Scale which are used in Australia and Canada. See Figure 3 on page 22, which describes the Canadian emergency department triage and acuity scale.

Furthermore, Aacharya, Gastmans and Denier (2011:23) denote that triage is a system used in emergency centres to direct patient flow. Equally, Mahmoodien, Egtesadi and Ghareghani (2014:1) reported in Iran that the implementation of a triage process at emergency centres has reduced waiting time and improved patient satisfaction. A report from the Ontario Hospital Association (OHA) (2011:19) in Canada indicates that patients misjudge the importance of their need for healthcare, because they do not understand the triage process that scores patients according to their urgency and how they will be seen. Thus, the patient perceived the waiting time as too long (OHA, 2011:19). The report further stated that another factor that contributed to long waiting time was the lack of communication from the emergency staff to the patient. Patients were reported to be worried and annoyed with the emergency department wait and the uncertainty over how long the wait will be (OHA, 2011:19).

Siddiqui (2012:841) reported in his study that aggression from patients and relatives towards healthcare staff is experienced at triage stations globally. He further mentioned that patients might experience prejudice because other patients are manage before them (Siddiqui, 2012:841). In Sweden, Burström, Starrin, Engström and Thulesius (2013:1) states that information of waiting time is vital for patient satisfaction in the emergency centre. They further hold that the lack of information on how the emergency centre functions to patients can result in patient frustration and eventually anger (Burström, Starrin, Engström & Thulesius, 2013:1).

A Pulse report released in 2010 in America, contained patients comments after a survey was done on waiting times (Fulton, 2010:20). One patient commented, “I was in the waiting room for more than three hours with chest pain, before being triaged”. Another patient commented, “They made me wait and stay in the hallway for more than five hours and told me I could not be moved to one of the spaces they had for patients” (Fulton, 2010:20).

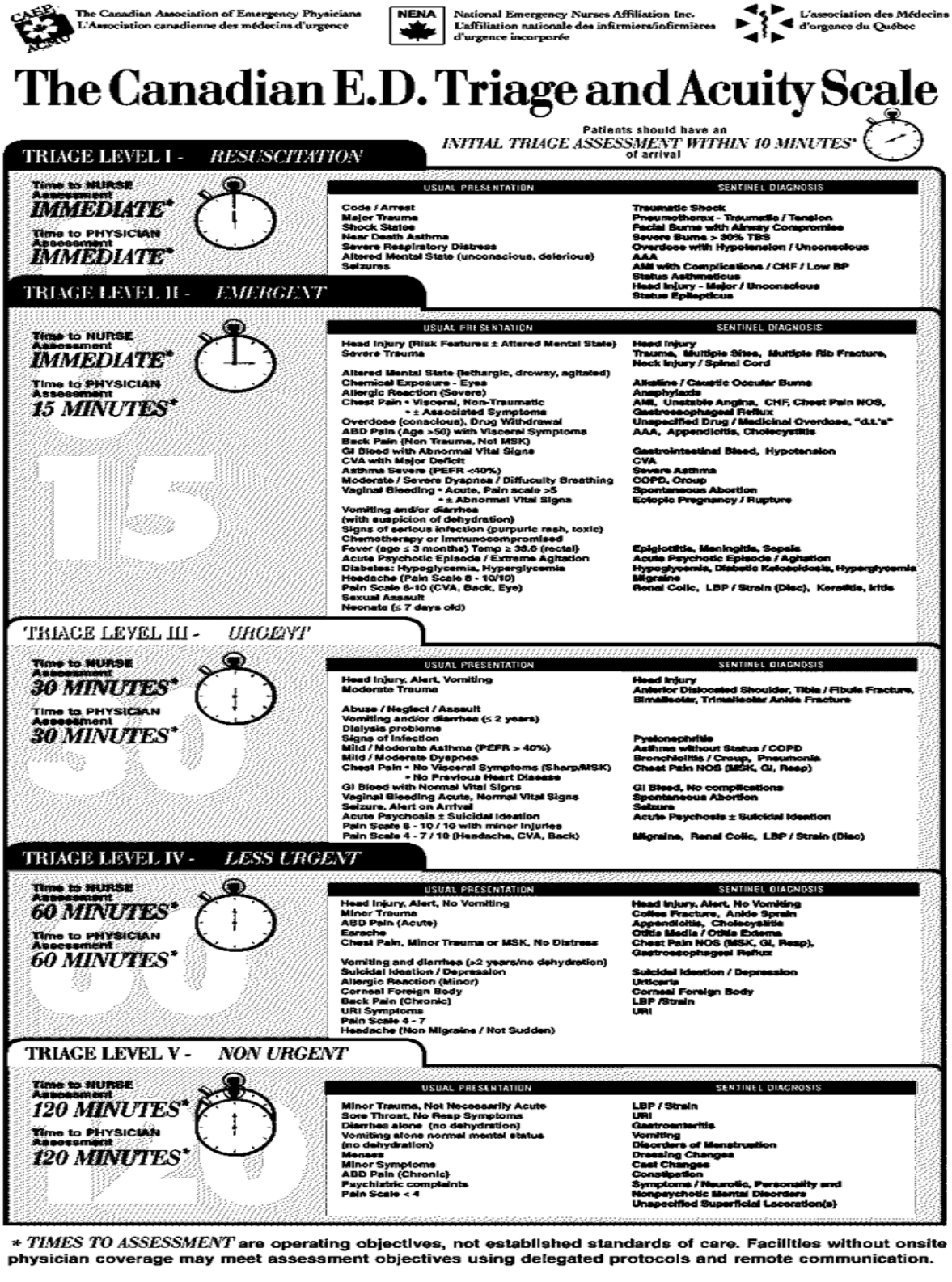

Figure 3: Canadian Emergency Department Triage and Acuity Scale

(Source: www.pin.com. 2015, August 12)

2.3.2 Factors that contribute to long waiting time for emergency centres patients: Sub-Saharan Africa

According to Calvello et al., (2013:43), the burden of acute illness is immense in low- and middle-income African countries. Thus, factors that contribute to long waiting time at emergency centres include serious categories of injury from traffic accidents to drowning. It is thus imperative to have effective emergency care services available to render quality emergency care to the communities in Africa.

In Nairobi, Kenya, Kalungwe, Teshome, Achia and Owuor (2010:1) reported of a road accident victim waiting more than six hours to be seen by a medical doctor at the emergency centre of a major hospital in Nairobi, Kenya. Ghana, Afrane and Appah (2014:35) found that the AngloGold Ashanti Hospital in Obuasi is visited by a large number of patients daily, which results in long patient waiting time. In addition, hospitals in Rwanda, Pascasie and Mshali (2014:181) reported that patients wait more than sixty minutes to see a doctor.

A research study in Mozambique pinpoints long waiting time for health service delivery as a reason why people do not have access to healthcare. The consequences are that patients default on their treatment because of waiting too long for service (Decroo, et al., 2011:39). In Nigeria, Ogunfowokan and Mora (2012:3) report that patients' perceptions about their encounter at healthcare facilities were either "long" or "too long". Consequently, their satisfaction decreased from "excellent' to "poor". Their study concluded that patient satisfaction reflects on the quality of care the patient receives and of which patient waiting time is an important element.

2.3.3 Factors that contribute to long waiting time for emergency centres patients: South Africa

Long waiting time is typical at many emergency centres in South Africa. Emergency centres are the first entry point into the public hospitals for emergency care, where conditions such as motor vehicle accidents, myocardial infarctions, violence, alcohol and substance abuse are treated. The burden of the above-mentioned conditions is stretching the capacity and resources of emergency centres to the limit. As a result, long waiting time, overcrowding and dissatisfaction amongst patients and family members about poor service delivery occurs at emergency centres. Although the services at emergency centres are complex, complaints by healthcare users on long waiting time are received by health facilities in South Africa on a daily basis. See Appendix 13, which depicts a complaint on long waiting time at Paarl hospital.

Reagon and Igumbor (2012:19) found in their study that factors that contribute to long waiting time in emergency centres in the Western Cape were heavy workload and long diagnostic and monitoring time. Becker, Dell, Jenkins and Sayed (2012:800) revealed in their study at George Hospital in the Eden and Central Karoo province, South Africa, that people with primary healthcare problems access the emergency centre because at the clinics only a set number of patients are seen.

Pillay (2012:308), hold that factors that contribute to the delay between time of triage and assessment at King Edward VIII Hospital were: the resuscitation of critically ill patients; the attention of nursing personnel to serious cases before the doctor commenced treatment; and a shortage of medical and nursing staff. Rondganger, 2013 reported a shortage of 44 780 nurses and 14 351 doctors in South Africa. Eygelaar and Stellenberg (2012:8) confirmed in their study the inadequacies that exist with staffing levels in rural hospitals in South Africa.

The previous Western Cape Minister of Health, Mr Theuns Botha, told a media briefing that emergency centres are “buckling under huge pressure due the increase in patient visits to the emergency centres” (WCGH, October 2013). Similarly, Dr Beth Engelbrecht, the previous Director of Health in the Western Cape commented in a News24 article that 75% of the population are without medical insurance, thus raising the pressure on public health facilities in this province to render service to those without medical insurance (News24, 20 August 2016).

Another factor that contributes to long waiting time at emergency centres is the aspect of crowding. According to Geelhoed and de Klerk (2013:122), crowding occurs when the physical and human capacity of the emergency centre is exceeded by the number of patients waiting to be seen. Boyle, Beniuk, Higginson and Atkinson (2012:2) hold that numerous factors contribute to long waiting time and overcrowding at emergency centres. They further note aspects of input, throughput and output within emergency centres that contribute to delay in care. The concerns for long waiting time are supported by Patel and Van Niekerk’s (2014:2) report in the South African Medical Journal (SAMJ) where they highlighted innovative solutions to address waiting time at a tertiary hospital in the Western Cape. The purpose of these innovations are to improve the patient waiting experience and lessen waiting time.

In the Cape Times (Farber 2014:10) reported on a complaint from a member of the public to the health ministry that “people are unhappy with the level of service, and frustrated by waiting in long queues or falling asleep in the waiting room”. See Appendix 14 for the relevant news clipping. In a study done by Burström, Starrin and Engström (2013:2) they concluded

that waiting time could only be resolved by changing the patient experience or by raising the throughput of patient flow.

The emergency centre of Paarl Hospital was upgraded to improve services to the patients. Although the SATS is used at the EC to decrease the patient stay at the EC as well as to improve patient flow and patient satisfaction, complaints on long waiting times are received daily by the management of the hospital. At the emergency centre all patients are seen and none are referred to primary healthcare facilities. According to Becker, Dell, Jenkins and Sayed (2012:801) the Western Cape Emergency Case Load Policy was drafted to improve efficiency in emergency centres in the Western Cape. They further states this draft policy proposes that patients who does not require further emergency healthcare after triage be referred to the appropriate facility (Becker, Dell, Jenkins & Sayed, 2012:801).

Patients visiting the EC should be managed within the following target times: patient triage-category red – immediate care; patient triage-category orange - seen in less than 10 minutes; patient triage-category yellow – seen in less than 1-hour and patient triage-category green – seen in less than 4-hours. The current National Minister of Health, Mr Aaron Motsoaledi, in his speech on the amendment of the National Health Bill on 14 August 2012, mentioned the introduction of a Health Ombudsman to address complaints by patients of which waiting time is one of the areas of concern (Motsoaledi, 2012).

2.4 PATIENT FLOW AND LEAN PROCESSES APPLIED TO LONG WAITING TIMES

Patient flow is defined as an individual's movement through the healthcare continuum (Da Silva, 2013:3). Efforts are made globally to improve health care services in emergency centres with the hope to improve long waiting time. Chan et al (2014:28) states that efficient and effective patient flow practices can contribute to better patient outcomes, decrease waiting times and provide quality patient care. Da Silva (2013:3) holds that poor patient flow increases the chance that the patient can be harmed during this long waiting period.

The concept of flow is used throughout healthcare divisions specifically to reduce waiting times in emergency settings (Da Silva, 2013:3). By applying the Toyota Production Lean Model principles, efforts are made to improve healthcare (Holden, 2011:265). Lean is a concept used by Toyota to maximize customer value and eliminate waste by introducing processes, such as value streams and flow. Value stream is defined by Koelling et al.,(2013:2) as all the action, value added or non-value added, needed to bring a specific product, service or a combination of both, to the customer. Successes of Lean in South Africa have resulted that these processes were introduced in the healthcare setting, especially in

the emergency department (Holden, 2011:265). According to Graban (2014:27), “Lean is not about efficiency, the main pillars are flow and quality with the primary focus on patient flow”.

Milne, Pendharkar and Winkel (2014:2) describe a typical pathway used by a patient when visiting the emergency centre through applying the Lean principles. The scene starts with the triage process following the route where the patient must see a health professional. During this Lean process, you look for waste that can be cut from that flow. Waste would be wasting time when there is a long wait for test results. This could reduce potential waiting time.

The Kings County Hospital in New York has been one of the institutions that applied Lean processes successfully in the emergency department, decreasing patient waiting time and improving patient flow (Health and Hospitals Cooperation, 2012). Rapid Improved Events (RIE), a tool used to identify waste, was used in Kings County hospital. By using RIE in the emergency centre, which endorses Lean principles, it held benefits for patient flow within emergency centres. A charge nurse was assigned to manage patient flow within the emergency department at Kings Country hospital.

Figure 3 shows an example of a patient flow process for a patient when entering an emergency centre. The figure also shows how a healthcare user is helped and how the amount of service delivery available can have an influence on waiting time. It starts from the arrival process to the different healthcare providers giving care right through until the patient gets to the pharmacy for discharge, or is admitted to a unit. As seen in Figure 4 below, if delays happen at one or more points, it will have a ripple effect and determine how long the patient will wait. Furthermore, it will create a bottleneck especially if service providers are not easily available to assist patients. The lack of patient flow can frustrate patients and lead to complaints about poor service and dissatisfaction.

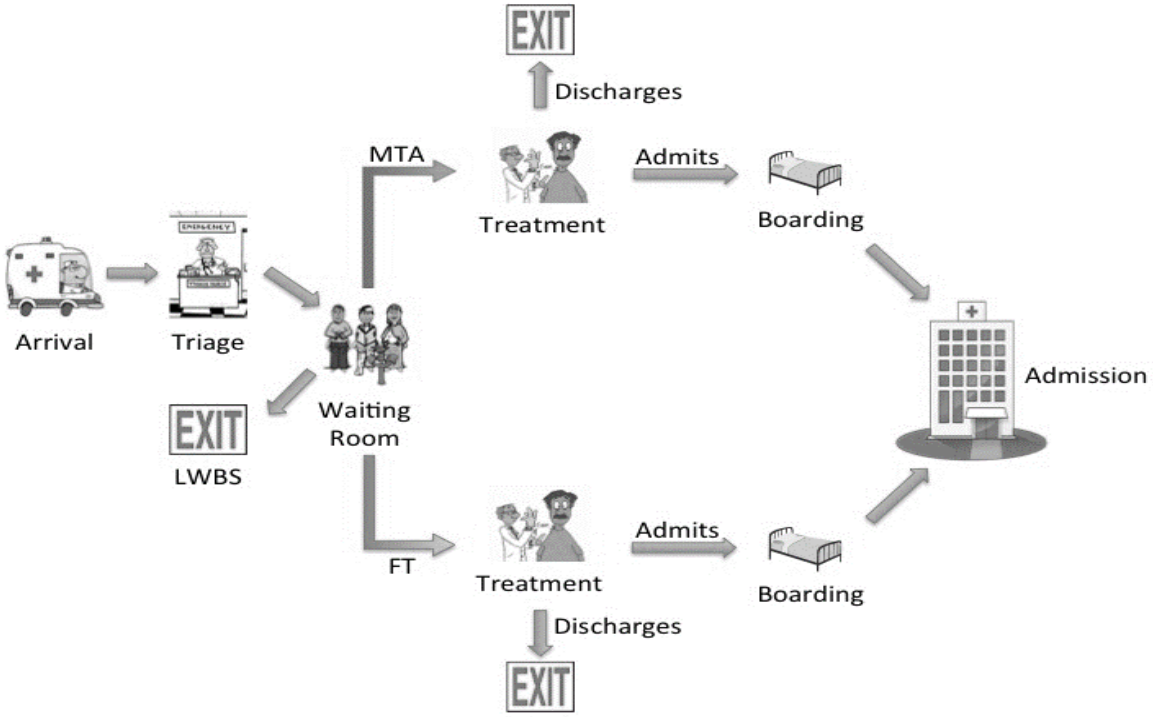

Figure 4: Patient Flow Map of an Emergency centre

Additionally, Oredsson, Jonsson, Rognes, Lind, Göransson, Ehrenberg, Asplund, Castrén, and Nasim Farrohknia, (2011:4) reported in their study that implementing point-of-care testing, where analysis of blood results are done in the emergency centre, can improve patient flow within emergency centres.

2.4.1 Solutions to improve Patient Flow

The Oxford Advanced Learners Dictionary (2011:574) defines flow as "the continuous movement of something in one direction". In healthcare, flow refers to the movement of patients through staff, units and institutions (Da Silva, 2013:3). To improve patient outcomes and patient satisfaction a reduction in delays of patient flow is necessary. Sayah, et al., (2014:2) suggest the following strategies to improve patient flow:

- Emergency Centre (EC) Patient Flow:- Reducing the time that patients spend in the EC through the application of best practices;
- Laboratory turnaround time:- Managing the ordering, collecting, testing, and verification of laboratory work through improved and standardized procedures;
- No delay nurse report:- Transfer of admitted patients to inpatient unit within 30 minutes of EC Nurse's report;

- Physician Admitting-Orders: Expediting completion of admitting orders by inpatient team for admitted patients to inpatient units.

Love, Murphy, Leitz and Jordan (2012:65) reported on a quality initiative that was instituted at a USA emergency centre by redesigning the triage process to improve patient flow. One of the reorganisation initiatives was to place a nurse practitioner at the triage area to perform a primary assessment and start diagnostics procedures. Likewise, Mandahawi, Al-Shihabi, Abdallah, Alfarah (2012:94) are of the opinion that to improve patient flow in the emergency centre the triage system should be implemented. Paul (2012:1119) proposed another strategy to overcome waiting time problems at an emergency centre that involved the use of satellite clinics to manage patients returning for follow-up. This led to a more satisfied patient.

2.5 PATIENT SATISFACTION AND LONG WAITING TIME AT EMERGENCY CENTRES

According to Syed, Parente, Johnson and Davies (2013:47), in many healthcare settings, the measurement of patient satisfaction has become routine. This is due to the impact it has on the quality of care. To hear the views of patients is vital in providing patient-centred quality care (NHS Surveys 2015:3). The Medical Dictionary for the health Professions and Nursing (2012) defines patient satisfaction as the patient opinion of care received. Bearing in mind what satisfies the patient will improve the patient experience and have a positive patient outcome.

Patient satisfaction is a valuable quality aspect to measure patients' feedback on service delivery. Long waiting time in emergency centres causes dissatisfaction and gives rise to complaints from patients. In addition, threatening and violent behaviour towards healthcare staff are experienced with lengthy waiting time at emergency centres (Yoon & Sok, 2012:597).

In the Healthcare 2030 Strategy of the Western Cape Government Health (WCGH), it is mentioned that the, "patient experience lies at the heart of 2030 and that patients should be treated with dignity and respect". It also concluded that waiting times should be to the satisfaction of the healthcare user. Globally, healthcare providers will want healthcare customers to be pleased with their services. Patients and their companions are unhappy if they have to wait long for healthcare delivery at emergency centres. Syed, Parente, Johnson and Davies (2013:47) noted that "measuring patient satisfaction has become routine in healthcare facilities due to its impact on quality of care".

Patient satisfaction surveys can also give valuable feedback to healthcare providers that could assist them in the development of improvement strategies to enhance patient service delivery at emergency centres. Getting feedback on long waiting time from the healthcare client can draw attention to gaps and assist in improving patient flow, and subsequently patient satisfaction (Al-Abri & Al-Balushi, 2014:5).

Research conducted in emergency departments globally revealed lengthy waiting times were related to lower patient satisfaction (Yedulla, 2012:16; Insight (2015:5). A wait that “feels” long due to crowded, noisy surroundings or lack of medical and pharmacy supplies can contribute to patients’ dissatisfaction. In Sweden, Burström, Starrin, Engström and Thulesius (2013:1) state that information of waiting time is vital for patient satisfaction in the emergency centre. Dissatisfied patients have a negative impact on healthcare staff working in emergency centres, which in turn influences staff morale and attitudes. Bad staff attitudes create an undesirable image of healthcare facilities worldwide.

The Constitution of the Republic of South Africa, Act No. 108 (1996:13) denotes the right of patients to complain about healthcare services in South Africa. The White Paper on Transforming Public Service delivery (1996) aims to meet the needs of all South African citizens, and contains principles that direct healthcare staff in their interaction with patients to ensure they are satisfied when they leave the healthcare facility.

As the patient is at the centre of service delivery, patient satisfaction surveys are also done yearly at health facilities in South Africa to hear the voice of the patient. This feedback is used as a measuring stick of how well the Department of Health is meeting the expectations of the patients regarding patient-centred care (Circular H 44/2014:78). It will also entail visiting healthcare facilities to engage with patients and hear their concerns and needs.

2.6 CONCEPTUAL FRAMEWORK

LoBiondo-Wood and Haber (2011:57) describes the conceptual framework as concepts and theories drawn together for a research study that affords the rationale for the research According to Burns and Grove (2012:230) concepts is “a term that describes an object”. In addition, Brink, Van der Walt and Van Rensburg (2011:27) holds that “concepts are the building blocks of theories”. The conceptual framework for this study is illustrated in Figure 2.

The following concepts have been associated with each other and relate directly to patient satisfaction, especially for patients visiting the emergency centres. These include the

National Core Standard(NCS) for Health Establishments in South Africa: National Department of Health (NDoH) (2011); the Healthcare 2030 Strategy of the Western Cape Department of Health (WCDH); Departmental Standards for Emergency Centres, Circular H44/2014; Quality Assurance in the emergency centre as well as Complaints Management. Patient satisfaction can be defined as the patient opinion of care received (Medical dictionary, 2015:22).

It is imperative for health services to know what is important for the patient. Feedback from patients on service delivery is thus crucial. The *National Core Standards* (NCS) for Health Establishments in South Africa: National Department of Health (NDoH) (2011) will set the benchmark for health facilities to ensure patients receive quality service delivery. For this study the focus will be on waiting time as this relates directly to the objective of the research which is to "explore and understand the factors that contribute to long waiting time for patients at the emergency centre of a regional hospital in the Western Cape, South Africa.

The *Healthcare 2030 Strategy* as well as the *Departmental Standards for Emergency Centres, Circular H44/2014* are further concepts in line with the NCS, with the main purpose of increasing effiency, decreasing waste (waiting time) and improving flow within healthcare settings to improve quality of care and increase patient satisfaction. In addition, *Quality Assurance* in healthcare is also a key driver for positive patient outcomes. Agbenorku (2013: 39) defined quality assurance as a "process-centred approach to ensure best services of care to patients". To deliver timeous care to patient in the emergency centre is key. Using tools and initiatives such as the triage process can assist in the delivery of effective care within the emergency centre. When patients are not satisfied with services rendered, *Complaints Management* are important to address clients complaints immediately and provide the necessary feedback.

2.6.1 National Core Standards (NCS)

National Core Standards for Health Establishments in South Africa: National Department of Health (2011) have been developed to improve patient service delivery to the public. Seven crosscutting domains (see figure 5), have been designed, with the first three domains focussing directly on patient quality care. The remaining four domains are support systems to enable the first three domains to be met.

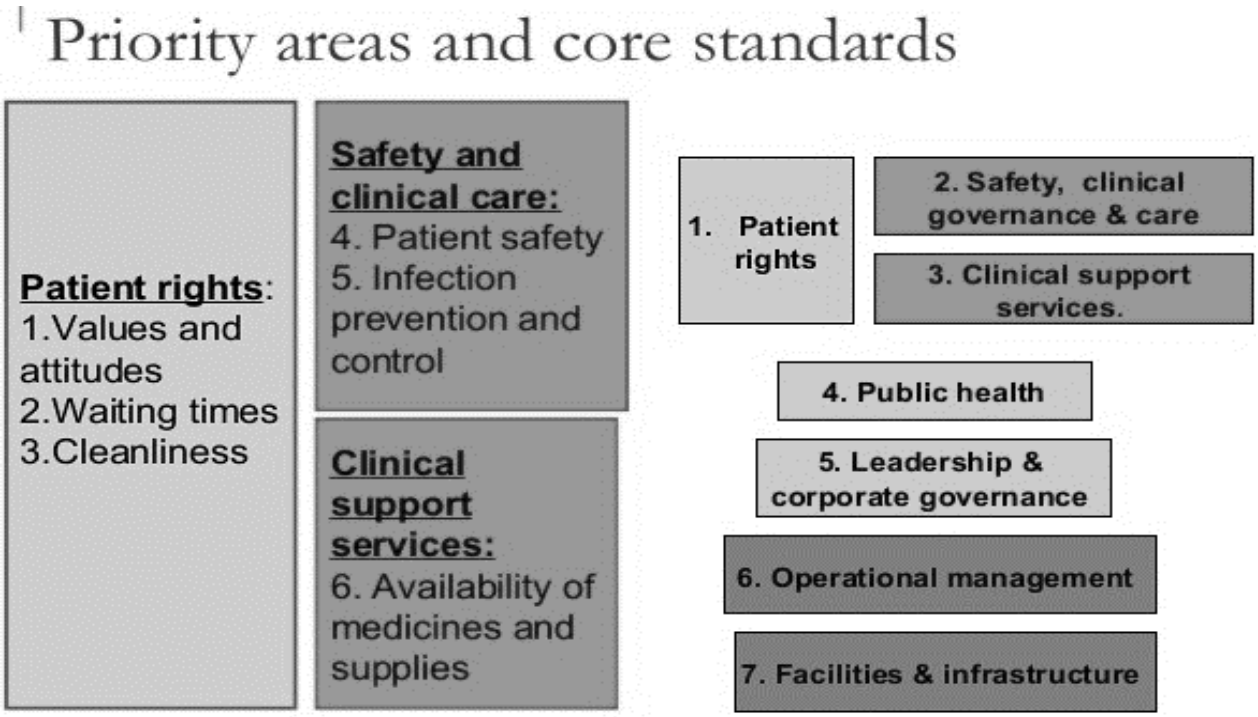

Figure 5: Seven domains of the National Core Standards for health establishments in South Africa (Source: DoH, 2011:16)

Within the NCS, six fast-track priorities have been identified which relate directly to patient care (Lourens, 2014:2). These priority areas are patients' rights where values and attitudes, waiting times and cleanliness are to be adressed. Secondly, patient safety and clinical care where patient safety and infection prevention and control are highlighted, and thirdly, clinical support services where the availability of medicine and supplies are the focus area.

In line with the NCS, the WCGH has instituted the Departmental Standards for Emergency Centres Document, Circular H44/2014 to improve access and quality of care within emergency centres.

2.6.2 Healthcare 2030 Strategy – Western Cape Government of Health (WCGH)

With the changes in healthcare needs of the patients in the Western Cape, the Western Cape Government of Health has developed a Healthcare 2030 Strategy to meet the needs of the patients. The framework has been developed with the consideration of the following three main areas, e.g. changes, opportunities and threats in the external environment, learning from lessons from the Comprehensive Service Plan and innovative thinking about a re-imagined future (Healthcare 2030, Draft: 2) The four pillars driving this strategy are:

- A person-centred approach;
- integrated provision of care;

- continuity of care, and
- a life course perspective (WCGH: Healthcare 2030: x).

The ultimate vision of the Western Cape Government of Health (WCGH) is thus to provide patient-centred quality care to the healthcare users in the Western Cape. Together with the National Health Act 61 of 1996 and the National Core Standards, which the WCGH aims to strive for continuous improvement in patient-centred care and thus implement the Departmental Standards for Emergency Centres, Circular H 44/2014.

2.6.3 Departmental Standards for Emergency Centres - Circular H 44/2014

Weber, Mason, Carter and Hew (2011:79), reported in a study done in 2014 in England, that a four-(4)-hour wait policy was implemented in January 2005 at emergency centres. The direction for this was because patients were waiting on trolleys for long periods.

Similarly, the Western Cape Government Health (WCGH) has developed Departmental Standards for Emergency Centres (Circular H 44/2014) for implementation. The purpose for this document is to "standardise processes within the emergency centres in the WCGH" (Circular H 44/2014:1). The four key drivers for patient satisfaction in the emergency centre are waiting time, waiting time experience, understanding what is happening and why in the emergency centre, and pain management. Actions from this circular will ultimately strive to improve quality of care and patient satisfaction within emergency centres.

Underpinning the Healthcare 2030 Strategy (WCGH 2012), the Departmental Standards for Emergency Centres (Circular H 44/2014:1) will focus on three key aspects, viz. reception of the patient, clinical care provided, and to ensure the patient receives continuous appropriate care when leaving the emergency centre.

The clinical care activity within the emergency centres to address service delivery is noted as follows:

(a) Packages of care

(b) Triage

(c) Redirection of patients requiring Primary Healthcare

(d) Appropriate diagnosis and intervention

(e) Staffing

(f) EC is not a default for other services

(g) EC Access block

(h) Clinical Governance and quality assurance (Circular H 44/2014:8).

By meeting these standards of care, the healthcare system in the Western Cape will be able to provide emergency care for the patient who has a right to safe patient quality care.

2.6.4 Quality Assurance in Healthcare Delivery

According to Agbenorku (2013:39), quality assurance is a process-centred approach to ensure best services of care to patients. For the patient it is critical to receive quality care especially if they are in pain and need emergency care. In a press release from the Health Quality Council of Alberta (2012:29), the article mentioned that waiting times at emergency centres are still too long. The World Health Organisation (WHO) (2013:9) noted a working definition for quality of care in health systems worldwide. The document further states that healthcare systems should focus on the following six dimensions of quality to make improvements to service delivery. These dimensions are:

- Effectiveness - delivering healthcare that is adherent to an evidence-base and results in improved health outcomes for individuals and communities, based on need;
- Efficiency - delivering healthcare in a manner which maximizes resource use and avoids waste;
- Accessibility - delivering healthcare that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need;
- Acceptability/patient-centeredness - delivering healthcare which takes into account the preferences and aspirations of individual service users and the cultures of their communities;
- Equitability - delivering healthcare which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, socioeconomic status;
- Safety - delivering healthcare which minimizes risks and harm to service users.

Moyakhe (2014:2) noted that the ethical principles of autonomy, beneficence, non-maleficence and justice are also key factors guiding quality healthcare. Furthermore, in Section 12(2) of the South African Constitution, it emphasizes that patients should be actively involved in decisions, thereby making autonomous decisions in their healthcare. The ethical principle of beneficence promotes to do good to patients thus healthcare staff should provide duty of care and prevent harm to the patient (Moyakhe, 2014:2). The last principle of justice advocates for equal and fair treatment of all persons (patients). In essence, to ensure quality care is given to patients at emergency centres, improvement initiatives can assist in identifying and addressing gaps.

In South Africa, the Negotiated Service Delivery Agreement (NSDA) is a charter that reflects the commitment of key sectoral and inter-sectoral partners linked to the delivery of identified outputs as they relate to a particular sector of government. For the health sector, one of the focus areas was improving patient care and satisfaction (NSDA, 2012:26).

In line with the NCS strategy, the Departmental Standards for Emergency Centres (Circular H 44/2014:12) in the Western Cape, highlighted four key aspects of patient satisfaction in the emergency centre that will be focussed on. They are waiting time; quality of service delivery by healthcare personnel; quality of the account of what is happening; and, pain management. These drivers are thus essential in meeting the expectations of the patient to receive patient-centred care. If long waiting time is experienced by patients without explaining the reason why, the patient thus has a right to lodge a complaint and receive answers.

2.6.5 Complaints Management and Healthcare Delivery

Reader, Gillespie and Roberts (2014:1) noted that complaints provide valuable feedback on safety-related issues in health facilities. They further hold patients feedback can assist in improving patient care (Reader, Gillespie & Roberts 2014:1). As noted in the Patients' Rights Charter every citizen has the right to complain about healthcare delivery (National Department of Health (NDoH): Office of Health Standards Compliance (OHSC), 2013:4). The researcher can also provide verbal evidence that at Paarl Hospital a Regional hospital in Western Cape, waiting long at the emergency centre is a complaint received daily by the management of the institution.

Imposing the Patients Right Charter is the National Health Act (Act 61 of 2003) which states that anyone can lay a complaint about service delivery at health facilities and expect a response and feedback once the complaint has been investigated (NDoH: OHSC, 2013:7). In the NCS policy document, domain 1 on Patients' Rights, sub-domain 1.5 important factors are mentioned to reduce delay in care. See Figure 4 below for the recommendations.

Sub domain	Standard	Criteria
1.5 Reducing delays in care	1.5.1 Managing waiting times and queues to improve patient satisfaction and attend to serious patients first.	Procedures are followed to minimize queues and minimize waiting times Waiting times are monitored and improvement plans are implemented Patients receive their treatment on the day of their scheduled visit Patients are treated according to the severity and nature of their health condition or problem An efficient filing system is in place for patients' records

Figure 6: Domain 1: Patient Rights

(Source: www.sarrahsouthafrica.org, 2015, September 10)

Addressing patients' concerns on long waiting times at emergency centres aims to enhance patient satisfaction and ensure that they receive the effective and efficient emergency care to which they have a right. If patients' complaints are not listened to and are ignored, they will feel aggrieved and the trust in the healthcare system will be broken.

The domain of Patient Rights sets out what a health facility must do to make sure that patients are valued and their rights upheld. Patients have the right to access the necessary care; to be respected, to be informed and to receive dignified care in an acceptable and clean environment; and, seen from the viewpoint of the patient, in accordance with Batho Pele Principles and the Patient Rights Charter.

2.7 SUMMARY

Factors that contribute to long waiting time at emergency centres, as was reviewed, is a problem for healthcare services worldwide that cannot be ignored. In this chapter, the literature reviewed showed that the factors contributing to long waiting time for patients are patient overload, inappropriate use of emergency centres, shortage of healthcare staff and waiting for a specialist for management.

To deliver quality patient care, the problem of long waiting time needs to be addressed to prevent dissatisfaction by patients and poor patient outcomes. Introducing policies and standards of care for emergency centres, health services in collaboration with national, provincial and local health departments are therefore a step in the right direction to solve the

problem of long waiting time at emergency centres. In chapter 3 the research methodology applied to this study will be described.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

In chapter 2 the literature was reviewed regarding factors that contribute to long waiting time for emergency centres patients globally. The reviews revealed that long waiting time at emergency centres has a negative impact on service delivery for patients visiting the emergency centre (Karaca, Erbil & Özmen 2011:2). The literature reviewed thus indicated the need for further study on this phenomenon. In this chapter the research methodology that was applied, to identify factors contributing to long waiting time for patients at the emergency centre of Paarl Hospital, a Regional hospital in the Western Cape, South Africa, will be described.

Research methodology is defined as the total strategy, from which the identification of the problem, to the final plans for data collection and analysis (Burns & Grove 2011:234). The research design, population and sampling, pilot study, data collection, data analysis, ethical considerations, limitations of the study, summary and conclusion will be presented in this chapter.

3.2 AIM OF THE STUDY

The aim of the study was to gain an understanding of factors that contribute to long waiting time for patients at the emergency centre of a regional hospital in the Western Cape, South Africa.

3.3 RESEARCH OBJECTIVES

The objectives of the study were to:

- To describe the patient perspective on factors contributing to long waiting time at the emergency centre
- To determine patient concerns about long waiting time at the emergency centre
- To describe the staff experiences and their perceptions of factors that contribute to long waiting time
- To review patient records, client satisfaction surveys, triage waiting time statistics, hospital statistics, NCS audit reports, strategic planning report, compliments and complaints register as well as minutes of meetings pertaining to long waiting time.

- To recommend possible improvement initiatives to address long waiting time.

3.4 STUDY SETTING

Burns and Grove (2011:40) define the setting as the "location for conducting research". In this research study, data was collected from participants at the emergency centre of Paarl Hospital.

Paarl Hospital is situated in a semi-rural area 60km away from Cape Town. It is a 311 bed public hospital. The emergency centre was revitalised into a state of the art unit in 2009 in order to deliver emergency care during the Soccer World Cup in 2010 (Lourens, 2015:5).

The emergency centre has an annual census of approximately 41 000 visits per year (Paarl Hospital emergency centre, 2011-2015). The hospital is the only public hospital which renders 24-hours emergency services to the population of the towns of Paarl, Wellington and Franschhoek.

On arrival at the emergency centre, patients receive a time card at the entrance from the security personnel. Patients are then directed to the waiting room, waiting to be triaged. When the triage process is completed by the triage nurse, patients are directed to the registration office for a patient folder. The folder is then given to the triage nurse after which the patient is required to wait in the waiting room for a consultation with a health professional.

3.5 RESEARCH DESIGN

According to Yin (2014:18), a research design is the logic that links data to be collected to the initial questions of a study. In addition, Burns and Grove (2011:253), describe the research design "as the blue print for conducting a study".

A case study design using a qualitative approach was used for this study. Yin (2014:1) noted that a case study "should be considered when the focus is to answer how and why questions". For this study, the question was thus: "Why is there long waiting time for patients at the emergency centre of Paarl Hospital?" Utilizing the case study approach was an appropriate design for this study as "case study research investigates a contemporary event in its real world context" that may have an impact on the situation being studied (Yin, 2014:1).

Baxter and Jack (2008:545) cite Miles and Huberman's (1994) definition of a case as "a phenomenon of some sort occurring in a bounded context". Therefore, in this study the emergency centre of Paarl Hospital was selected as such a suitable context to gain patients, family members, medical and nursing management and healthcare staff perspectives on

factors contributing to long waiting time for patients at the emergency centre of Paarl Hospital.

Case study design according Yin (2014:18) can be exploratory, explanatory or descriptive as well as single, holistic and multiple. This case study features a descriptive approach and a single unit of study as only a single emergency centre was researched.

3.6 POPULATION AND SAMPLING

Burns and Grove (2011:51) describe a population as “all elements (people, objects, events and substances) that meet the sample criteria for inclusion in a study”. LoBiondo-Wood and Haber (2010:583) define a population as “a well-defined set that has certain specified properties”.

3.6.1 Population

In this research study, the study population consisted of different role players from the emergency centre, which included patients, family members who visited the emergency centre as well as medical and nursing management as well as healthcare staff working on the fixed establishment from 1 March 2016 until 31 May 2016. See Table 2.

Table 2: Individual Interviews of participants

INDIVIDUAL INTERVIEWS	(n=18) TOTAL
Patient triage category orange	2
Patient triage category yellow	2
Patient triage category green	2
Family members	4
Emergency centre medical management	2
Emergency centre nursing management	1
Professional Nurses	2
Enrolled Nurse	1
Auxiliary Nurse	1
Ward Clerk	1

3.6.2 Sampling

Burns and Grove (2011:51) define sampling as the process of selecting a group of people or other elements with which to conduct a study. Purposive and convenience sampling was used for this study. According to LoBiondo-Wood and Haber (2010:90) in purposive sampling, the researcher looks for a particular participant who can illuminate the event under study. Purposive sampling was followed with the medical and nursing management staff of the emergency centre. The reason for the purposive selection of the managerial staff was that they had expert knowledge and experiences regarding the long waiting time for patients at the emergency centre.

Convenience sampling was followed with the healthcare staff from the emergency centre. According to Burns and Grove (2011:535) convenience sampling occurs when participants happened to be at the right place at the right time. Information to the healthcare staff was given during their lunch breaks and those who indicated their willingness to participate, were given a date and time that was convenient for them to be interviewed by the fieldworker.

Convenience sampling was followed with patients and family members who visited the emergency centre during the study period. Burns and Grove (2011:305) hold that convenience sampling is mostly used in healthcare studies. General study information was provided to patients and family members by the researcher in the two waiting rooms. Coercion was avoided as participants could autonomously indicate their willingness to participate in the study. The participants who accepted the invitation voluntarily were then interviewed.

3.6.3 Inclusion criteria

Burns and Grove (2011:291) state that inclusion criteria are the list of characteristics the research population must have to be suitable for the study. The population for this study included patients' triage category orange, yellow and green, as well as family members who waited more than four hours with their sick or injured relative at the emergency centre.

Medical and nursing management, as well as healthcare staff working on the fixed establishment, in the emergency centre were also part of the study. In addition, the following relevant documents were also part of this inclusion criterion: patient records to evaluate triage coding; time of arrival and discharge (waiting time); client satisfaction surveys; triage waiting time statistics; hospital statistics; National Core Standard (NCS) audit reports; the strategic planning report; compliments and complaints register; as well as minutes of meetings concerning LWT.

3.6.4 Exclusion criteria

According to Burns and Grove (2011:291) exclusion criteria are requirements identified by the researcher that eliminate or exclude an element or subject from being in a sample.

The following populations were excluded from the study:

- Patients with triage category red were excluded from the study due to ethical reasons as these patients were critically ill;
- Children under 18 years; and,
- Mental healthcare patients, due to their vulnerable status and diminished autonomy.

3.7 INSTRUMENTATION

Data was collected using a self-developed, open-ended semi-structured interview guide (See Appendix 6). Interviewing is a “flexible technique that permits the researcher to discover meaning in greater depth than is possible with other teghniques” (Burns & Grove, 2011:351). The researcher was assisted by her supervisor when drafting the questionare guide.

An open-ended question was drafted to engage participants so that they could be comfortable and participate freely in conversation with the researcher and fieldworker. The opening question was: “How do you experience the service at the emergency centre of Paarl Hospital?” Individual interviews with patients were conducted by the researcher while they waited to be seen by the doctor, while waiting for blood results or were waiting for the pharmacy to open. With the consent of all participants, a digital recorder was used during all the interviews. The interviews were intended to gain insight into participants’ perspectives of factors that contribute to long waiting time for emergency centre patients at a Regional hospital in the Western Cape, South Africa.

Probing was used during the interviews in order to gain in-depth data from participants regarding their perspectives on the research questions. Burns and Grove (2011:85) describe probes as “queries made by the researcher to obtain more information from the participant about a particular interview question”. Probes developed for the interviews were:

“Tell me more about your knowledge of the triage process”.

“Can you explain what you mean?”.

“Do you have any solutions for this problem?”.

3.8 PILOT INTERVIEWS

LoBiondo-Wood and Haber (2010:236) define a pilot study as a small sample study, conducted before the formal study is done. Burns and Grove (2011:544) further note that a pilot study assists the researcher in refining the methodology "such as the treatment, instruments, or data collection process to be used in the larger study". The reason for the pilot study was to elicit any problems that might hamper the interview process and to determine if the semi-structured interview guide needed to be amended.

Informed consent was obtained and the interviews were digitally recorded and transcribed. The pilot studies were done by the researcher and the field worker with separate participants of the study population at the emergency centre of Paarl Hospital. The study included one patient and one staff member respectively to achieve the objectives of the study. The findings of the pilot studies were included in the main study as the data collected was valuable to the objectives of the study.

3.9 TRUSTWORTHINESS

LoBiondo-Wood and Haber (2010:128) hold the view that to ensure trustworthiness; there should be a relationship between the study's themes and the quotes. The following aspects were consequently applied in this case study to ensure rigor in the project, i.e. credibility, transferability, dependability and confirmability as proposed by Guba and Lincoln (1985:316-323). Bias was avoided as the researcher made sure she remained conscious and objective during the data analysis process. The assistance of the supervisor and fieldworker aided in obtaining a different perspective of data collected.

3.9.1 Credibility

To assess the credibility of research, the following principles should be applied: the case study question must be described clearly; the case study design should be suitable for the research question; purposeful sampling should be applied; collected data managed methodically and analysed correctly (Baxter & Jack, 2008:556).

Credibility where clarification with participants was achieved, by restating and summarising what participants had said during the interviews. Member checking with one management staff member and one with a family member took place after interviews to further enhanced credibility. Creswell (2009) cited in Carlson (2010:1105) states that "member checking is best done with interpreted pieces such as themes and patterns emerging from the data rather than the actual transcripts". This was done by the researcher and participants could then validate it. Due to logistical reasons not all participants could be done.

Baxter and Jack (2008:256) further note that credibility can be enriched by the use of reflection and use of field notes. To enhance the credibility of the study, reviews of the transcripts, written notes and concept drawings were done with the supervisor. In addition, credibility was further enriched by triangulating data, which were collected from documents reviewed, such as patient records to view triage coding, triage waiting time statistics and the compliments and complaints register. These documents confirmed patients' and family member's feedback that long waiting time was indeed experienced at the emergency centre of the hospital. The field notes added additional worth to the data collected from interviews.

To improve the credibility of the study further, the researcher did reflection after listening to the digital recordings numerous times and made use of the written notes after each interview by re-reading them meticulously. Comparisons amongst data collected from all participants were drawn as well as the field notes. Themes and sub-themes were identified, categorised and diagrammed during discussions with supervisor.

3.9.2 Transferability

Barnes, Conrad, Demont-Heinrich, Graziano, Kowalski, Neufeld, Zamora and Palmquist (2012:4) hold that transferability is a process performed by readers. The readers become familiar with the content of the study and make their own decision if the results of the research would be the same in their own circumstances. Barnes et al, (2012:5) further state that results of any study can be applied to other situations, but transferability is most relevant to qualitative research such as case studies.

In this study, the researcher is of the opinion that readers can identify with the research content of factors contributing to long waiting time for patients at an emergency centre of a Regional Hospital in the Western Cape, South Africa. It is thus their decision to make if the results presented in the study are relevant to their particular situation. The decision lies with the readers to decide if they want to transfer and apply this knowledge in their own situation.

Anney (2014:277) hold that the researcher facilitates the transferability process by giving a thick description of the topic under study and by purposeful sampling. The researcher thus constructed the question on 'Why is there long waiting time for patients at the emergency centre of Paarl Hospital?' In addition, purposive and convenience sampling were used, as only patients, their relevant family members, management and healthcare staff working within the emergency centre were selected for the interviews. Furthermore, these role players gave in-depth information about the topic under study, as they experienced personally.

3.9.3 Dependability

Dependability is another criterion proposed by Guba and Lincoln (1985) to establish the trustworthiness and requires an audit (Brink, 2008:119). The person whom acts as an auditor will follow the process and procedures used by the researcher to determine whether they are acceptable (Brink, 2008:119). For this study the data collection and analysis was verified by the academic supervisor.

3.9.4 Confirmability

Brink (2008:119) holds that with confirmability the results, conclusions and recommendations should be supported by the data collected, and that there is corroboration between the researcher's interpretation and the data collected. Digital recordings were listened to again and reflective notes were made by the researcher after each interview.

Discussions were held with the study supervisor to ensure that the data collected by the researcher and fieldworker were an accurate account of the interviews held. Anney (2014:279) states that the rigor of a study is further enriched when a researcher reflect on her own perceptions and interests during the research process. The use of quotations from interviews held, appended in chapter 4 further enhanced confirmability.

3.10 DATA COLLECTION

In order to do the research, the researcher held personal discussions with the Chief Executive Officer and Director of Nursing at Paarl Hospital, to inform them about the intended study, to obtain their consent for the study and also to make organisational arrangements with the relevant role players from the emergency centre.

The data collection took place over three-months from 1 March 2016 to 31 May 2016. The reseacher visited the emergency centre and explained the research topic and objectives to the patients and family members in the waiting room at the emergency centre. Those who agreed to participate were given a consent form and interviews were done while they waited to be seen by the doctor, while they were waiting for the pharmacy to open or for blood results. The researcher accordingly collected data from patients and family members at the emergency centre.

Individual interviews with patients and family members were carried out by the principle researcher in a private office as arranged beforehand, to explore factors that contribute to long waiting time for patients at the emergency centre of Paarl hospital. Interviews with staff in managerial positions were done by the researcher in the researcher's office or in their own office at Paarl Hospital on a date and time that was convenient for them.

The research topic and objectives were also explained to the healthcare staff of the emergency centre on day and night duty. Those who agreed to participate received a consent form and arrangements were made to do their interviews at a date and time that was covenient for them. The reason for this, was so that it did not interfere with their working activities in the emergency centre and hinder service delivery to pateints.

Interviews with the healthcare staff were done by the fieldworker after working hours or on their off days. The reason that a fieldworker was employed is that the principle researcher works at the hospital as an Assistant Nursing Manager. Due to the hierarchy in nursing structures at the hospital, it may not have been suitable for data collection that a more senior nursing manager interviewed general nursing staff. Refreshments were served to all participants except participants in managerial positions.

Interviews were conducted in Afrikaans by the researcher and the field worker who is fluent in both Afrikaans and English. A Xhosa translator was at hand for isiXhosa speaking participants to translate. Only one isiXhosa-speaking person participated. This participant was also fluent in Afrikaans and preferred that the interview be conducted in Afrikaans. Afrikaans is the spoken language of the majority of patients visiting the emergency centre of Paarl hospital followed by isiXhosa and English.

Digital recordings were made during the interviews to allow the researcher and fieldworker to give full attention to the participants during the interviews. Reflective notes were then made after each interview, which assisted the researcher in making connections and mapping out ideas for themes. The reflective notes played an important part during data engagement and data interpretation.

To maintain confidentiality, a participant's information was not mentioned and captured during the interviews. All participants were coded by number to ensure further anonymity and privacy. The research objectives were explained on the consent leaflet to all participants before informed consent was obtained by the researcher and her fieldworker (See Appendix 5).

The researcher, with the assistance of her supervisor, developed the open-ended semi-structured interview guide and the questions related to the research topic. The researcher and fieldworker facilitated the interview process by starting with an opening question of "how participants experience the service at Paarl hospital emergency centre".

Triangulation was also used in the study where different kinds of data were collected and reviewed about the topic under study. LoBiondo-Wood and Haber (2010:236) define

triangulation as the expansion of research methods to enhance diversity and an enriched understanding of the research topic. Multiple sources were used which included patient records to evaluate triage coding, time of arrival and discharge (waiting time), client satisfaction surveys, triage waiting time statistics, hospital statistics, National Core Standard (NCS) audit reports, the strategic planning reports, compliments and complaints register as well as the minutes of meetings.

3.10.1 Data collection: patients and family members

The principle investigator carried out individual interviews with the patients in triage level orange, yellow and green participants, and their family members, based on the objectives of the study. Informed written consent was obtained by the researcher from the purposively selected participants at the hospital. A digital voice recorder was used to capture relevant data.

3.10.2 Data collection: medical and nursing management in EC

Individual interviews with management of the emergency centre were carried out by the principal investigator after informed consent was granted by them. Two interviews were held in the researcher's office and one interview in a manager's office on scheduled appointments.

3.10.3 Data collection: healthcare staff

Individual interviews with staff of the emergency centre were carried out after informed consent had been granted by them to the fieldworker. The reason for using a fieldworker was that the principle investigator works in a managerial position at the hospital. The fieldworker, who is a professional nurse working for an external agency, thus conducted the staff interviews. She was trained to do the interviews by the supervisor and researcher.

One interview was conducted at a participant's home. This participant indicated her willingness to participate in the study and have the interview on her off day. Other staff interviews were conducted in the researcher's office as well in a private office in emergency centre by the fieldworker. Interviews were conducted after hours as not to compromise patient care. Table 3 below, summarises the data collection process.

Table 3: Summary of data collection process of participants, by whom and venue

Participants	Researcher	Venue
Patients x 6	PI	Office in EC
Family members x 4	PI	Office in EC
Emergency centre medical management x 2	PI	Researcher's office
Emergency centre nursing management x 1	PI	Participant office
Healthcare staff x 3	Fieldworker	Researcher's office
Healthcare staff x 1	Fieldworker	Office in EC
Healthcare staff x 1	Fieldworker	Participant home

3.10.4 Data collection: documents reviews

According to Burns and Grove (2010:97) "data in qualitative research are collected through interviews, focus groups, observation and review of documents". Different documents were studied which assist the researcher to develop and gain insights relevant to the research study. The patient medical record contains the triage record of the patient, which indicates the triage category as well as arrival and discharge times of the patient. In the client-satisfaction survey, feedback from patients regarding their satisfaction or dissatisfaction regarding services received at the emergency centre was observed. Furthermore, the triage waiting-time statistics indicate the number of triage category patients waiting to be seen along with the times they waited at the emergency centre (See Appendix 10).

The NCS audit reports stems from the NDoH policy to improve service delivery to the patient. A yearly peer-reviewed audit is done at the hospital to prepare the facility for an external audit by the OOHSC in order to obtain a certificate of compliance. The strategic planning report contains the priorities of management regarding activities that need to be addressed, of which long waiting time at the emergency centre was identified as one the areas to be looked at (See Appendix 11). In addition, the compliments and complaints register contained the compliments and complaints from patients and family members regarding services

received, their concerns and the outcome of these complaints, of which waiting time was a major complaint at the emergency centre in 2015 (See Appendix 12).

3.10.5 Field notes

Field notes was kept by the researcher during data collection at the emergency centre. LoBiondo-Wood and Haber (2010:272) hold that field notes epitomise a description of written notes intended to paint a story of a social situation. With the field notes it was also unavoidable not to observe events that were happening in the emergency centre. The field notes and observation of events was significant in making connections with the data collected from participants during the interviews as well as the relevant documents pertaining to long waiting time. Kushner and Morrow (2003), cited in Lobiondo-Wood and Haber (2010:119) hold that the "collection of different kinds of data about a phenomenon bring clarity that cannot be achieved with only one method". Below is an excerpt from the field notes.

Field notes from the emergency centre waiting room on the 21 March 2016 (Human Rights Day – Public Holiday)

I am waiting for participants to indicate their willingness to be interviewed after general information regarding the study was explained to them in the waiting room. During my time in the emergency centre I observed that the triaged category yellow files were more than ten. A medical doctor came to evaluate these files and start working from above. At the same time, family members came to the triage station enquiring about their sick relative and complained about the long wait. The healthcare staff triaged the sick relative again and she was upgraded to triage category orange. Throughout my time in the emergency centre no one from the healthcare staff provides information as regards to the triage system or why patients are waiting long for treatment.

In addition, on the same date, a visitor, who happens to be a medical doctor, came to enquire about the waiting time for the triage category green patients. He was informed by the triage nurse that the waiting time was more than four hours. He acknowledge her feedback and informed her that the same waiting time was experienced at the private hospital further down the road from the hospital.

On the morning of the 22 March 2016 during Nursing Management handover, the triage waiting time statistics for triage category yellow patients was 20-hours and for the triage category green 17-hours with a total of 77 patients seen during the day on the 21 March 2016 from 07h00 until 19h00 (Paarl hospital triage waiting time statistics, 2016:3).

On public holiday's local clinics are closed. Patients seeking healthcare are making use of the emergency centre.

3.11 DATA ANALYSIS

According to Burns and Grove (2011:535), data analysis is conducted to lessen, organize and provide meaning to data. The digital recordings were transcribed verbatim by a two professional transcribers within days after each interview. Each digital recording was clearly labelled and stored on an electronic data storage device. The researcher received the transcripts and listened to the recordings to ensure accuracy of the transcripts. Confidentiality was upheld where digital recordings were password protected and kept safe in an office at the researcher's home.

The qualitative data analyses process followed. Burns and Grove (2011:53) state that in qualitative research the researcher needs to become familiar with the data. The researcher engaged with the transcripts, by reading and re-reading the transcripts. Written notes and drawings were made in an effort to become familiar with the data collected. Key concepts were highlighted with a colour marker to identify relationships within the data from all the participants. The study supervisor assisted with concept drawings and mapping and confirmed the concluding findings of data.

Burns and Grove (2011:94) refer to coding as the "process of reading data, breaking text down into sub-parts and labelling that part of the text". This process allowed the researcher to identify patterns and compare data from participants. Important concepts were categorised and rearranged during regular discussions with the supervisor during which central themes and sub-themes were identified. This consultation process assisted the researcher to ensure there was agreement on the main themes and sub-themes.

The principle of bracketing was applied by the researcher to safeguard against misrepresentation of the results. Burns and Grove (2011:96) hold that bracketing is the process where the researcher put aside his/her own knowledge regarding the research under study and focus on what the participant articulates. Interpretation of the experiences and quotes from the participants was achieved by linking the data sets, emerging themes from the interviews and the relevant documents pertaining to long waiting time by adopting the triangulation strategy. According to Burns and Grove (2011:552) triangulation is a process where two or more theories, methods and data sources are used in a study. In this study data was collected from different study participants, relevant documents as well as field notes made during data collection at the emergency centre.

LoBiondo and Haber (2011:184) hold that a qualitative case study is characterized by researchers spending extended time at the study site and having personal contact with the case. In addition, Burns and Grove (2011:96) hold that qualitative research requires the researcher to practice reflection. It was inevitable that the researcher noticed certain elements at the emergency centre while collecting data, which were relevant for the study. A photo of signage explaining the process of the triage system at the entrance of the emergency centre was noticed and was included as a relevant document in the data set (See Appendix 12). In addition, field notes were made during the researcher's visits to the emergency centre for data collection.

Patients and family members getting frustrated because of the long waiting time at the emergency centre and interrupting healthcare staff was observed. During one visit, a female patient came, assembled herself on the floor next to the triage station very angrily, and shouted at the triage nurse in an attempt to get help faster. This patient interrupted the triage nurse several times while she was performing triage functions with another patient.

Another visit, observed a visitor enquiring about the waiting time for green patients at the emergency centre of Paarl Hospital. At the time of the enquiry, the waiting time for triage category green patients was more than fours. He stated that the same waiting time was experienced at the private hospital. The researcher added these observations to field notes to reflect upon.

3.12 DATA TRIANGULATION

According to LoBiondo-Wood and Haber (2010:118) triangulation is a process when multiple methods are used to collect data on the same topic. It allows the researcher to address the phenomenon of long waiting time through the collection of different kinds of data. Thus understanding of the topic was enriched by using the interview data and the relevant documents linking the different data sets in relation to long waiting time. Yeasmin and Rahman (2012:154) stated that triangulation is not just aimed at validation but at "expanding and broadening one's understanding of the research topic".

Stake (2005:454) cites Flick, (1998) hold that triangulation also serves to clarify meaning by seeing the case from different views. The use of the fieldworker added to this aspect, as the researcher got different perceptions from participants that the fieldworker interviewed. It also prevented researcher bias, where data was collected only by the researcher. In addition, the documents reviewed, supported the viewpoints from participants that long waiting time was experienced by them at the emergency centre. Unexpected incidents that happened while

the researcher was waiting for participants to indicate their willingness to be interviewed were noted in field notes. This will be discussed in chapter 4.

3.13 ETHICAL CONSIDERATION

The ethical conduct of the researcher to protect the participants human rights was upheld during the research study. Their right to self-determination, the right to confidentiality, anonymity, informed consent and to be protected from discomfort and harm, was adhered too (Burns & Grove, 2011:118). Their right to self-determination was upheld as they could voluntary decide to participate in the study. The right to confidentiality and anonymity were maintained by anonymous numbering of trancripts and written informed consent was obtained. No participant was coerced to participate in the study

The proposal for this research was submitted to the Stellenbosch University Health Research Ethics Committee for ethical approval. Approval was obtained in November 2015 with stipulations which were accepted in January 2016 (Appendices 1(i) and 1(ii)). Once ethical approval was obtained, the research proposal was submitted online onto the National Health Research Database (NHRD) for approval. Approval was obtained from the Western Cape Government of Health and Paarl Hospital to carry out the research at Paarl Hospital's emergency centre (Appendices 2 and 3).

The use of a digital recorder was explained to participants. Participants were informed that they could voluntarily withdraw at any time during the interview without any consequences. Participant data is locked and stored in a secure office at the home of the researcher.

Unexpected occurrences happened while the principle researcher was waiting for participants to indicate their willingness to participate in the study after information was given to them in the waiting room. Field notes of these events were documented by the researcher. Incidents that happened were significant for the research study (Burns & Grove, 2011:88). The researcher observed frequent interruptions from patients at the triage station while healthcare staff were performing their triaged functions with other patients. The researcher further noticed a sign illustrating the triage process at the entrance of the emergency centre, which was significant in the data set as patients and family members did not understand how the triage system functions within the emergency centre setting.

A professional colleague from the emergency centre was on standby to assist a participant (patient) should the need arise, and a telephone was available for the researcher to request assistance. Refreshments were also served.

3.14 LIMITATIONS

Limitations of the study include that the study was conducted at one hospital's emergency centre only. Generalisations should thus be made with attentiveness, as the data collected is not illustrative of all emergency centres in South Africa. In addition, only patients and their family members who visited the emergency centre during the study period were eligible for the study.

3.15 SUMMARY

Chapter 3 detailed the methodology used in this research study, including the research design, study population as well as the pilot studies. The process of data collection and data analysis was described. The research design was a multi-method case study design with a descriptive qualitative approach to determine factors contributing to long waiting time for patients at the emergency centre of Paarl hospital. In the following chapter, the findings of the study are presented and discussed.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

In chapter 3, the methodology was described. This chapter outlines the analysis and interprets the data that was collected on factors that contribute to long waiting for patients at an emergency centre of a regional hospital in the Western Cape, South Africa. Data analysis is described by Burns and Grove (2011:94) as the interaction that occurs between the researcher and his or her involvement with the data collected.

4.2 BIOGRAPHICAL DATA

The study population included (n=18) participants. A total of (n=6) patients and (n=4) family members were interviewed. In addition, a total of (n=2) medical and (n=1) nursing management and (n=5) healthcare staff of the emergency centre were interviewed. Most of the interviews were in Afrikaans, which is the local language of the majority of participants. The researcher and fieldworker are bilingual and speak both Afrikaans and English, which enabled them to conduct interviews.

4.3 THEMES EMERGING FROM THE INTERVIEWS

Five main themes emerged during the interviews (See Figure 7). Sub-themes are presented in Table 4 that were also identified during the analysis process. A detailed discussion will follow of the sub-themes. To describe the themes the analogy of a game or puzzle were used as it seemed perplexing and puzzling to some participants and that a new ‘game plan’ was required to address long waiting time (LWT).

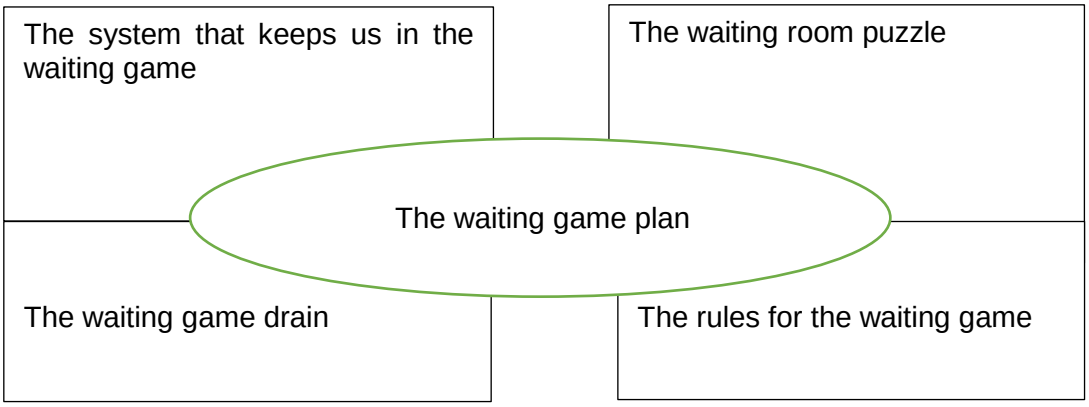

Figure 7: Five Main Themes

The first theme that emerged is **'The system that keeps us in the waiting game'** which was to focus on the actual waiting-time factors in the health facility. Sub-themes were identified such as staff shortages, patient overload, inefficiencies in patient flow, inappropriate use of the emergency centre and lack of computerised and support services support.

The second theme was **'The waiting room puzzle'**, where patients and family members seem puzzled about what was happening during the time that they waited. Patients shared their emotions and unhappiness regarding the long waiting time. Other matters raised were mixed messages received from healthcare and security staff, lack of communication regarding the triage process and a family member's condition, lack of knowledge of the triage system and patient dissatisfaction.

The third theme **'The waiting game drain'** emerged from the effect that the long waiting time has on staff members functioning at the emergency centre. The sub-themes that emerged were that healthcare staff are shouted at by patients and family members during LWT, anger raised towards staff, the interruptions from patients and family members during working time, aggressive and violent behaviour towards staff as well as clients complaining because of long waiting time. This had a negative effect on the morale of healthcare staff.

The fourth theme **'The rules for the waiting game'** links well with the conceptual framework with the specific aim towards patient satisfaction. The National Core Standards for health establishments is one such policy, which aims to provide standards and criteria for quality care. In addition, the Healthcare 2030 strategy and Departmental Standards for emergency centres, Circular H44/2014 are supporting legislation in the Western Cape Government Health, which direct patient care. Other directives include Quality Assurance and Complaints Management that advocate for better service delivery to the patient.

In the final theme **'The waiting game plan',** proposals from patients and family members to improve long waiting time are presented, which include sub-themes such as recruitment of medical and nursing staff and the use of Community Service Medical Officers (COSMOS) to assist in the emergency centre.

Proposals from healthcare staff to address and improve waiting time at the emergency centre include sub-themes such as educating patients and family members regarding appropriate use of emergency centres, the need for a 24-hour community health centre to see yellow and green triage category patients, and referral to district health clinics. In Table 4, an overview of the results for this study can be seen with the emerging themes and sub-themes, which will be discussed in detail.

Table 4: Overview of Results

Theme 1: The system that keeps us in the waiting game	
Objective1: To describe patient perspective of factors that contribute to long waiting time (LWT)	
Questions	Results
What are the factors contributing to long waiting time?	Shortage of healthcare and support staff Patient overload Inefficiencies in patient flow Inappropriate use of emergency centre Lack of computerised support
Theme 2: The waiting room puzzle	
Objective 2: To determine patient concerns about LWT	
What are patients and family member's perspectives and concerns regarding long waiting time?	Patient and family members are unhappy, frustrated and irritated Patients experienced that healthcare staff failed to notice them Lack of communication regarding triage process and family member's condition Lack of patients and family members knowledge on the triage system Patient dissatisfaction Receiving mixed messages from healthcare and security staff
Theme 3: The waiting game drain	
Objective 3: To describe staff experiences and perceptions of factors that contribute to LWT as well as documents	
What are the healthcare staff's concern about LWT?	Aggressive behaviour towards healthcare staff Continuous interruptions by patients and family members during LWT
Theme 4: The rules for the waiting game	
Conceptual framework: Legislative policies driving patient satisfaction in emergency centre	
National Core Standards Healthcare 2030 Departmental Standards for emergency centre (EC) Circular H44/2014 Quality Assurance in EC Complaints Management in EC	Inefficient quality care (lengthy waiting time experienced) Lack in patient centred care (no communication to patients and family members on triage time and triage process) Negative patient experience (bad attitudes from healthcare staff) Poor quality of service (poor communication from healthcare staff Dissatisfaction and complaints on long waiting time (lack of knowledge regarding complaints procedure)
Theme 5: The waiting game plan	
Objective 5: To recommend possible proposals to address waiting time	
Proposals to improve long waiting time	Recruitment and selection of healthcare staff 24-Hour Community Health Centre for patients Educate patients and family members on emergency centre usage and referral to local clinic

Quotations from interviews will be presented to corroborate the emerging themes. Quotations have been translated from Afrikaans to English for the purpose of the international reader.

4.3.1 Theme 1: The system that keeps us in the waiting game

The following sub-themes emerged during data analysis of the system that keeps us in the waiting game and are discussed below:

4.3.1.1 Shortage of healthcare and support staff

It is perceived from the interviews that shortage of healthcare and support staff contributes to the long waiting time at the emergency centre. These were some of the comments:

> *"They should appoint more doctors, the staff are not enough".* ***(Pilot 1)***
>
> *"I don't know if the doctors are too few, but everything is slow at the hospital".* ***(Patient 2)***
>
> *"If I can put it like this. The service is not bad, but it is tedious or let me say drawn–out. I think at the moment the doctors are too few".* ***(Family member 2)***
>
> *"It is only the doctors that are a problem that is why we wait so long".* ***(Patient 5)***
>
> *"I think one of the factors that contributes to the long waiting time, is the shortage of staff".* **(Family member 4)**

A medical management staff member noted the appointment of more staff to the emergency centre by saying the following:

> *"We are understaffed. Budget cuts to appoint staff also contributes to staff shortages. With the huge patient workload, we cannot cope. The nursing fraternity especially did not increase that much".* ***(Medical management 1)***
>
> The shortage of nurses in South Africa was reiterated during Nurse's day celebrations in May 2016 by the Secretary of the Democratic Nurses Organisation of South Africa, Nhlanhla Dladla **(**SABC News, 12 May 2016). In addition, a media report in the Burger on the 8th August 2016 confirmed the shortages of healthcare staff in public health facilities in South Africa (Die Burger, 8 August:18). The shortage of nurses at Paarl Hospital are confirmed in Table 5, where the appointment of nurses has been slow in contrast to other disciplines.

Table 5: Nursing Posts at Paarl Hospital

CATEGORY	ORGANISATIONAL DEVELOPMENT INVESTIGATION	PRESENT	GAP	%
Director Nursing	1	1	0	0
Assistant Nursing Managers	4	4	0	0
Operational Managers	16	13	3	19
Professional Nurses	151	137	24	15
Enrolled Nurses	137	90	47	24
Enrolled Auxiliary Nurses	127	103	24	19
Infection Control Coordinator	1	1	0	0
Staff Development	3	2	1	33
Occupational Health Practitioner	1	1	0	0
Quality Assurance Manager	1	0	1	100
TOTAL	**452**	**352**	**100**	**22**

Acknowledgement: Director Nursing - Paarl Hospital.

Adding to the shortage of nursing staff is the reported shortage of support staff. Non-nursing duties such as portering and clerical work have to be done by limited nursing staff at the emergency centre, which in effect contributes to the long waiting time. These were some comments from staff interviews:

> *"I think you are aware on how difficult it is to get a porter to help a patient. So instead we take two staff members out of* the *facility to take a patient to X-rays or to the wards. This then leads to me not getting my ECG's done and the doctor cannot see the patient and everyone has to stand and wait. This impedes on efficiency in the emergency unit".* ***(Medical management 2)***

> *"We are having a major problem with porter services at the emergency centre. They are just not available".* ***(Nursing management 1)***

Healthcare staff interviewed shared similar thoughts as patients and family members that shortages of staff contribute to long waiting time for patients at the emergency centre. These are quotes from the interviews:

> "*The total of patients are many and the doctors to few".* **(Healthcare staff 3)**

> *"More patients fewer doctors. Also fewer staff to look after a higher influx of patients. This is what makes it so difficult".* **(Healthcare staff 5)**

A frequent topic that emerged from all the participants' interviews was related to the clinical and support staff shortages, which in effect, contributed to the long waiting time at the emergency centre.

4.3.1.2 Patient overload

Patient overload was another factor that contributed to long waiting time for patients at the emergency centre. When patient overload exceeds staff capacity, challenges to render safe and effective care develops within the emergency centre.

All the staff interviews included data that patient overload is another factor that contributed to the long waiting time at the emergency centre. As one staff member commented:

> *"We are seeing over 100 patients in a 24-hour period, we just cannot cope with the influx of patients to the EC. A snowball effect develops where the 100 becomes 120 and the 120 becomes 140. Thus the waiting time becomes longer".* ***(Medical management 2)***

The snowball effect means that the patient caseload increases at the emergency centre. While patients are waiting long at the emergency centre, new patients arrive continuously which adds to those who are still waiting to be seen. Monthly statistics for 2015/2016 at the Paarl Hospital emergency centre runs at an average of 3359. Thus, patient overload is contributing to longer waiting times for treatment. These were comments made by healthcare staff:

> *"Patients don't get the care and the treatment they need in the emergency centre, because of the huge patient overload".* ***(Healthcare Staff 2)***

Other data revealed the effect of immigration of foreigners over the South African border, which in turn has a huge impact on healthcare delivery. These are comments from interviews:

> *"The immigration and influx of people to the Western Cape also contributes to the problem of patient overload".* ***(Medical management 2)***

> *"It is sometimes difficult to give attention to everybody, because the patients are just too many".* ***(Healthcare staff 3)***

As pressure on the emergency centre increases, bottlenecks develop within the emergency centre. This prevents the flow of service delivery in the emergency centre and ward staff have to be asked to assist. During an interview, the following comment was made:

> *"When we exceed our capacity, we ask the ward staff to assist in a joint venture to take patients to the ward. This way we free up space to see new cases in the emergency centre".* ***(Medical management 2)***

Patient overload can have negative outcomes on patient care in the EC, which results in critically ill patients not getting the emergency care required.

4.3.1.3 Inefficiencies in patient flow

Healthcare staff indicated that the lack of inefficiencies in patient flow within the emergency centre can be attributed to long waiting time for patients waiting to be seen. One such concern was the geographical layout of the EC. As one staff member noted:

> *"At some point an electrocardiogram (ECG) needs to be done. Healthcare staff must then walk from "the south end to north end to fetch the ECG machine and this takes a lot of time and impact on their productivity".* ***(Nursing management 1)***

Another concern from a staff member was the lack of protocols in the emergency centre to guide the professional nurse to carry out duties, which can minimize delay in care for patients. As she stated:

> *"I feel if there are protocols in the emergency centre which empower the professional nurse to carry out work from the start, then it will decrease the waiting time for patients".* ***(Healthcare Staff 2)***

Another issue raised from a staff member was the inexperienced medical doctors and lack of senior doctors on duty after hours, which hampers the flow of patient care in the emergency centre. This is what she said:

> *"There are too few doctors as well as few senior doctors on duty after hours. After hours only junior and agency doctors are on duty. They are inexperienced and take longer to see patients, to make a decision and the flow of services is immediately slower".* ***(Nursing management 1)***

In addition, healthcare staff revealed that a lack of laboratory turnaround time impedes timeous care to patients at the emergency centre and creates a hold-up.

> *"Patients are seen and blood tests are requested. Depending on the results the patient gets referred to the specialist and is seen only after 16h00. This creates a bottleneck situation where patients get admitted after 19h00 where minimum staff is on duty".* ***(Nursing management 1)***

This sentiment was shared by a medical staff member who said:

> *"From the lab point of view we are looking at improving point-of-care testing. I have just written a motivation for a point-of-care blood test machine. The blood gets analysed on which we can get our creatinine on it. You can get creatinine within two minutes. We will be saving a lot of time and money and we will be able to discharge patient almost immediately instead of the patient waiting another six hours for the blood results to come back. So it is improving patient efficiency by decreasing lab turnaround time".* ***(Medical management 2)***

The effect of inefficiency on laboratory turnaround time came to the fore during patient interviews. This is a comment:

> *"They said my blood results will be available in one-and-a-half hour, it's nearly two (2) hours now"* ***(Patient 4)***

In addition, coordination with other speciality services contributes to ineffective patient flow at the emergency centre. As a medical staff member reported:

> *"The paediatric department admit directly to the ward when a child gets referred, but it is difficult to get the other specialties to do the same because of their bed capacity. Paediatric is only 70% full so they can admit quickly".* ***(Medical management 2)***

The healthcare staff appeared to agree that inefficiencies in patient flow within the emergency centre contributed to long waiting time for patients.

4.3.1.4 Inappropriate use of emergency centre

Another factor contributing to long waiting time for patients at the emergency centre of Paarl hospital, was the inappropriate use of the EC by patients because they have nowhere else to go for care. District healthcare services are not available after 16h00 and all clinics and Community health centres are closed over weekends and public holidays. There is no other district hospital in the area that renders 24-hour services, except one private health facility. Thus, the majority of patients who are uninsured make use of the EC for non-urgent cases. Patients and healthcare staff commented the following:

> *"We have nowhere else to go. Over weekends and after 16h00 all clinics are closed"* ***(Patient 5)***

> *"Clinics close at 16h00. So we do not send patients away, we see everybody".* ***(Medical management 1)***

> *"I think we will assist the community if there is an after hour clinic open. The clinic should also be in the community because the hospital is not near to where the*

community lives. In addition, it cost them money to get here". **(Nursing management 1)**

A staff member also mentioned the concern that patients visit the emergency centre (EC) only to obtain a sick certificate, especially on a Monday. One patient mentioned the fact that an electrocardiograph cannot be done at the clinics which is why he came to the emergency centre. The perception of patients and family members is that they will get the necessary investigations faster at the emergency centre, than at the clinic. A staff member made the following comment:

"Patients think they will get radiology and laboratory services quicker at the emergency centre. Therefore, they come to the emergency centre instead of going to the clinic". ***(Healthcare Staff 3)***

Further data revealed inappropriate visits to the EC by patients are because of their choice to see a doctor instead of a Primary Health Nurse Practitioner (PHNP). At the clinics and community health centres the majority of patients are managed by the PHNP. As one staff member noted:

"I have been informed by many patients the reason they visit the EC is because they get seen by a doctor". ***(Healthcare staff 3)***

Another explanation for non-urgent visits to the EC was that parents bring their children to the emergency centre, especially over weekends and after hours. A comment from a manager stated the following:

"Mothers work during the day and if a child gets ill, the only available health facility open after 16h00 is the emergency centre". ***(Nursing management 1)***

Furthermore, one clinical manager mentioned that discussions he had with and a motivation send to District health services regarding extended hours at the CHC for the patient triage-category green, did not get a positive outcome.

4.3.1.5 Lack of computerized support

Another system issue is the lack of computerised support, which contributes to the long waiting time and delay in care for patients at the emergency centre. A patient reported the following:

"I will suggest that they get somebody else to get the blood results, so that the doctor can continue with his job. Now he must leave the patient and go on the computer to get the results". ***(Patient 4)***

Her sentiment was shared by a clinical staff member. This was his comment:

> *"Every time I must leave a patient to go on the computer to get the laboratory results: this is time away from the patient. I suggest point-of care testing could assist in obtaining results faster".* ***(Medical management 2)***

A fellow clinical staff member mentioned that a streamlined technology system is needed to render timeous care to patients at the emergency centre and allow staff to work more efficiently or faster. He made the following comment:

> *"We must go through five (5) different programs to get blood results. This is inefficient. If there can be somebody allocated to manage this, then I can see more patients".* ***(Medical management 1)***

4.3.2 Theme 2: The waiting room puzzle

The waiting room puzzle theme produced the following sub-themes:

4.3.2.1 Patient and family members experiences of LWT

The patient and family members believe when they visit the emergency centre they will receive timely care and have a positive experience of service delivery. However, patients and family members interviewed, agreed that the wait for the doctor were their main area of concern. These are their comments:

> *"After midnight there are only 2 doctors on duty. They only see to the urgent cases and forget about us".* ***(Patient 5)***

> *"We must wait, wait and wait…my son was irritated and he cried. He later fell asleep. We did not see a doctor since last night when my son came in. Only his observations were done. Waiting for almost 17 hours to see a doctor is bad".* ***(Family member 4)***

The patient medical record reviewed for above-mentioned comment supported the interview data that the patient waited 16 hours to be seen by a doctor after the triage was done. Similar, triage waiting-time statistics analysed from the EC revealed that the waiting time for category orange, yellow and green patients are not according to the acceptable waiting time as proposed in the SATS training manual. Appendix 10 depicts the triage waiting time statistics for patients at the EC on the 16 May 2016.

Another patient also raised the concern that his condition can deteriorate and nobody will notice it because he was sitting in the waiting room and not under the supervision of the medical staff. He commented the following:

"I can bleed to death. I am fed up with waiting so long". ***(Patient 2)***

Patient and family members also expressed their resentment regarding mixed messages from nursing staff and security personnel at the emergency centre. One patient commented:

"The sister said I must wait inside, but then the security said I must wait in the waiting room. To whom must I listen to?" ***(Patient 2)***

Another participant also raised the concern that patients referred from a General Practitioner (GP) to the EC, also need to wait again before being seen by a doctor. This was his comment:

"If somebody can see those patients referred from GP then they don't need to wait again, but now you have to wait with your letter". ***(Family member 2)***

A patient also noted that healthcare workers do not worry about patients sitting in the waiting room and ignore them even though they complain about the pain. He further noted that that is the reason they leave the EC without been seen. This is his comment:

"Sometimes they give pain tablets. Other times the staff don't worry and the patients moan about the pain. That is the reason they leave the EC". ***(Patient 5)***

Patient and family members were dissatisfied with the lengthy wait at the emergency centre of Paarl hospital.

4.3.2.2 Patient Dissatisfaction

Patient satisfaction surveys are invaluable for understanding the needs of the patient. Care for clients should be safe, timely, effective, efficient and patient-centred. Dissatisfaction was experienced by participants regarding service delivery at the emergency centre. Their main complaint was on the long waiting time. These are their comments:

"I mean, they can see in which manner the patient gets brought in, but now they let the patient wait till the morning or the next morning or afternoon, before you get helped. This is not right". ***(Patient 5)***

"The long waiting time does not work well. I have seen patients die here because of waiting so long". ***(Patient 2)***

"Yes, I visited the emergency centre previously and at that time I waited till the next morning". ***(Patient 3)***

That patients are dissatisfied with the long waiting time at the emergency centre, is shared by staff working in the emergency centre. One staff member commented that the long waiting time for patients leaves her with a low morale. This is her comment:

"The patient counts on you to help them to receive timely care. You feel hopeless when you see the patient the next morning again when you left him/her last night when you went off duty". ***(Healthcare staff 3)***

The concern regarding patient dissatisfaction on long waiting time at the emergency centre was also highlighted at a strategic planning workshop for the Senior Management of Paarl Hospital in May 2016. Long waiting times was listed as the third major complaint by clients in the 2015 Compliments and Complaints register (See Annexure 12). In addition, waiting times of two participants interviewed on a public holiday are depicted below in Table 6. The proposed waiting time for triage category orange patient according to the SATS is less than 10 minutes.

Table 6: Waiting times of participants at the EC

Interview number	Triage category	Date and arrival time	Triage time	Date and time seen by medical doctor	Waiting time
Patient 2	Orange	27/4/2016 10H00	11H00	27/4/2016 12H45	2-hours 45 minutes
Family member 3	Green	26/4/2016 18h05	19h00	27/4/2016 12h00	16 hours

A client satisfaction survey carried out at the hospital in 2015 also revealed evidence of dissatisfaction by patients regarding nurses' attitudes at the emergency centre. The following comments were reported by patients and family members during the research study and related to when they asked questions about waiting time:

"Some of the staff are rude to us. I just want to ask them a question". ***(Patient 2)***

"The nurses think they can tell you anything they like. You cannot cross-question them. That is the biggest problem I have". ***(Family member 1)***

Patients' and family members' main complaints during the interviews were about the long waiting time at the emergency centre. They further alleged that some healthcare staff at the emergency centre were rude and ignored them when they wanted to asked questions.

4.3.2.3 Lack of communication with patient and family members during long waiting time

The communication is important to keep people informed of what is going on. This is especially important at an emergency centre, where people are worried about their loved ones. Participants were concerned about the lack of communication from healthcare staff regarding the waiting time. Patients and family members interviewed expected that there should be effective communication from healthcare staff. They stated:

> *"You just sit there; you don't know when you are going home".* ***(Patient 5)***

> *"There was no communication from the staff regarding the reason for the long wait".* **(Family member 4)**

A further concern was the lack of communication from healthcare staff to the family members on the condition of a sick or injured relative. Family members sit in the waiting room perplexed about what is going on as no explanation is given to them by the healthcare staff. They become worried as they sit and wait with no news about the health status of their sick or injured relatives. As one family member reported:

> *"We are here since last night and nobody informed us about my mother's condition. That is really unacceptable. I feel depressed and worked myself up as I haven't seen my mother".* ***(Family member 3)***

Healthcare staff also identified the lack of communication from nursing staff to patients regarding the waiting time and triage process. As they stated:

> *"My concern is that patients are not informed about the reasons for the long wait".* **(Pilot Healthcare staff)**

> *"I think there is a gap. We should sharpen this aspect. I don't think the nurses says to the patient 'You are a green patient, and the waiting time is this'. I think it is the patients right to be informed".* ***(Healthcare Staff 3)***

4.3.2.4 Patients' and family members' experiences and knowledge of the triage system

Most of the patients and family members reported that they were not informed about their colour code and in addition, have no or little knowledge of the triage system. Although an A4 image has been posted at the entrance of the emergency centre explaining the triage process, the majority of the patients and family members did not understand how the triage

system works. In addition, their feedback revealed that they were not informed about their colour code by healthcare staff. These are their comments:

> *"Yes, I heard about the green, orange and red, but I don't know what it is about. The green is for the doctors and the orange for the sisters".* ***(Pilot)***

> *"No, I don't know how the system works and they did not tell me my colour code".* ***(Patient 6)***

> *"The girl that I met here this morning said to me she was yellow or green and then they change her and said she must get up and go and sit outside. I don't know how the colour codes work, but they cannot change your colour".* ***(Family member 3)***

That the triage system was puzzling to most of the patients and family members at the emergency centre is evident in the following excerpts:

> *"The staff only put the file at the side. We are patients. I did not know what colour I am. The nursing staff have nothing to do with me. I sit there, and they speak their own stuff. My file is there long time. Other people came after me and are helped quickly. I cannot understand this".* ***(Patient 2)***

> *"I don't understand the colour codes. It is orange, yellow and green. I am not sure about the colour". (****Family member 2)***

Another concern from a family member was that the triage process is to blame for the long waiting time at the emergency centre. As he commented:

> *"The congestion is at the sifting process. Put a reliable person there who can say what is urgent".* ***(Family member 3)***

In addition, further evidence revealed that patients and family members did not understand the role of the triage nurse. *"The sister cannot help the patient, the doctor must. The sister can just put the file there".* This information substantiates the fact of the lack of knowledge from patients and family members about the triage system.

A family member also witnessed that files are tampered with and are rearranged while they wait in the waiting room. This was her comment:

> *"You see them tamper with the files every time. You don't know if they sort you". (****Family member 2)***

Comments mentioned above, showed participants had no or little knowledge of the triage system used in the emergency centre to assess patients and score them according to the seriousness of their condition, or the role of the nurses.

4.3.3 Theme 3: The waiting game drain

The waiting game drain theme generated the following experiences and concerns from healthcare staff:

4.3.3.1 Healthcare staff experiences and concerns about patients and family members' behaviour during the long waiting time

Long waiting time for patients and family members at the emergency centre results in negative attitudes and behaviour towards staff. Staff involved during the interviews on the behaviour of patients and family members during the long waiting time, highlighted their concern for their safety, especially while working at the triage station. The majority mentioned that they get the brunt of the difficult behaviour and attitudes shown towards them by patients and family members, as can be seen from the comments below:

> *"Some of the family members, who accompany their sick relative, make it very difficult for us to carry out our job. They interfere with our duty and shout at our nurses. When they come to the doctor, they are quiet".* ***(Healthcare Staff 4)***

> *"I feel unsafe here at the triage station, because patients get angry towards our nurses because of the long wait. I normally explain to them that they are waiting for the doctors****". (Healthcare Staff 2)***

> *"The waiting time is for the doctor after the triage and unfortunately the nursing staff must bear the brunt of the frustration towards them from patients and family members".* ***(Healthcare Staff 6)***

Healthcare staff mentioned that they are shouted at as patients and family members become annoyed because of the LWT. This made it difficult for them to work. A clinical staff member said the following:

> *"They call me a racist when I tried to explain the reason for the long wait and the triage system".* ***(Medical management 1)***

In addition, a major concern of healthcare staff interviewed, was the high rate of psychiatric patients treated within the emergency centre. The violent and aggressive behaviour by these patients towards staff, which in effect causes a delay in care to other patients in the emergency centre, was a key concern. One healthcare staff member reported:

"The amount of psychiatric cases within the emergency centre is alarming. These patients don't get good care and they are aggressive and need to be restrained all the time. We are going to move to a new 30 bed Psychiatric Unit in July/August 2016". ***(Nursing management 1)***

The abovementioned challenging situations for healthcare staff in the EC affect their ability to deliver quality safe care to patients.

4.3.3.2 Staff experiences of interruptions during the long waiting time

A further concern for the staff was the interruptions that occur while they were attending to patients carrying out their nursing and medical duties. Medical and nursing staff interviews revealed interruptions such as answering a phone call where family members enquire about a sick relative; family members wanting to visit an ill relative; as well as frequent complaints about when will they be seen during healthcare staff's working time, contribute to delay in care, and thus increases waiting time for other patients. These are their comments:

I spend 30% clinical time seeing patients. The other times I must answer queries, call a patient or look for stuff". ***(Medical management 2)***

He further explained that looking for a trolley or gloves to carry out his job is inefficient and contributes to a delay in care to patients.

Nursing staff working at the triage station mentioned the continuous interruptions from patients and family members, which they found very disruptive and unacceptable.

"At the triage station you get all the questions. Especially the family members interrupt while you are busy. We have a queue marshal, however he is not effective". ***(Healthcare Staff 2)***

This continuous interruption in healthcare staff's working activities does not contribute to a positive patient experience within the emergency centre.

4.3.4 Theme 4: The rules for the waiting game

This theme links well with the conceptual framework in that it addresses patient care directly within emergency centres.

4.3.4.1 National Core Standards

As indicated in chapter 1, the National Department of Health (NDoH) has implemented the National Core Standards for health establishments (NCS) to improve quality of care to the patients. Waiting times is one of the six priority areas to be addressed in order to improve service delivery to clients, and the NCS document therefore states what is required to deliver

safe, quality and effective care to patients in health facilities. It further guides health facilities on measurement tools to address gaps and implement improvement programmes to become compliant.

The patient experience at the emergency centre of Paarl Hospital was therefore not in line of what the NDoH aims to achieve. Patients and family members endured long waiting times at the emergency centre of Paarl Hospital and were all dissatisfied with the long wait.

The NCS in Domain 1 also addresses the patient's right to be informed. The lack of information given to clients came to the fore during patient and family members' interviews, where they reported that they were not informed on how long they will wait or how the triage system works and their colour code. It also highlighted the need to address these insufficiencies as an improvement initiative to be reiterated to staff at the EC of Paarl Hospital. The external NCS audit done in October 2016 at the emergency centre, found this domain to be non-compliant.

The lack of communication from staff to patients regarding long waiting time at the emergency centre was mentioned again by the Minister of Health of the Western Cape, Dr Nomafrench Mbombo on 29 August 2016 when she opened the new Psychiatric Unit at Paarl Hospital (Hardine 2016, September 29). Further policies and standards have been instituted by the WCGH to address service delivery to patients at health facilities in the Western Cape.

4.3.4.2 Healthcare 2030 and Departmental Standards for Emergency Centres - Circular H 44/2014

Legislation and health policy can affect the way in which healthcare is delivered. Healthcare 2030, where the focus is on patient experience, is one such plan to address service delivery to patients. The WCGH values are found in the acronym of CCAIRR. Caring, competency, accountability, integrity, responsiveness and respect are what patients expect when visiting any emergency centre. The purpose remains for these values to become a reality in health facilities in the Western Cape and at the emergency centre of Paarl hospital by moving forward in implementing Healthcare 2030.

The WCGH also implemented departmental standards for emergency centres to improve access and quality of care within emergency centres. In line with the vision of Healthcare 2030, a positive patient experience is proposed with acceptable waiting time (Departmental Standards for Emergency Centres - Circular H44/2014:2). All of the patients and family members that were interviewed experienced unacceptably long waiting times at the emergency centre of Paarl hospital. Their dissatisfaction about long waiting times was supported with the documents reviewed such as the compliments and complaints register,

written and media complaints (Moses, 2015:4; Appendix 13) in which long waiting time was experienced at the emergency centre.

The results revealed the lack of communication to patients and their family members regarding the reasons for the long wait as well as the triage waiting time. The Departmental Standards for Emergency Centres (Circular H44/2014:7) holds important information on the waiting times of which patients and family members should be periodically informed. Further results revealed the lack of knowledge from patients and family members of how the triage system works. To address this issue the Departmental Standards for Emergency Centres (Circular H44/2014:7) further proposed that information should be made available to patients regarding the triage process and the implications of being scored on a different triage category.

The factors contributing to long waiting time for patients are having a negative influence on patient satisfaction at the emergency centre. In addition, healthcare staff experienced negative attitudes towards them from patients and family members. Strategies to address long waiting time should be implemented to improve services to patients (Departmental Standards for Emergency Centres - Circular H44/2014:7).

4.3.4.3 Quality Assurance in Emergency Centre

As mentioned in the literature review, Quality Assurance in healthcare is to ensure that patients get the best healthcare services. In the emergency centre where patients need urgent care, efficient and quality care is needed to have positive patient outcomes. The data collected from patients and family members indicated poor quality of service regarding long waiting time for patients at the emergency centre.

Effectiveness of service delivery was a problem due to the lack of porters support within the emergency centre. In addition, efficient care, i.e. antibiotic and pain medication, was not administered to patients due to the LWT and patient overload at the emergency centre.

Accessible care was also compromised, as patients need to get timely care, which they did not get at the EC of Paarl hospital. Patient-centred care was another feature that did not happen at the EC. In Circular H 102/2016:2, the WCGH noted that all actions of healthcare staff should be directed by the values of the department, which includes respect, caring, responsiveness and integrity.

Equitable quality service is an essential element in Healthcare 2030 to be delivered to all citizens. The patients interviewed during the study received poor quality service because of the LWT. In addition, the quality of patient care was compromised because of factors such

as inefficient patient flow, patient overload, lack of communication and bad attitudes from healthcare staff.

In order to address the problem the NCS clearly specifies that waiting times must be measured at health facilities in order to improve services. The NCS further provides a safety net for quality improvement, which ultimately aims to create a culture of quality in health facilities.

4.3.4.4 Complaints Management

The Constitution of the Republic of South Africa, Act No 108 (1996: 13) notes that all citizens have the right to healthcare and the right to complain when they are not satisfied with service delivery. Participants revealed numerous problems about which they were unhappy.

Most of their complaints were regarding long waiting time. Appendix 15 presents a family member's complaint about his elderly mother who experienced lengthy waiting time at the EC. When asked what they think of how the issue of long waiting time should be addressed, only one (1) participant suggested that it should be reported to the CEO of the hospital. Other participants said they were dissatisfied with the long wait, but because they were in need of healthcare and other health facilities were closed, they will wait their time. Some participants were also unhappy that they were not informed about the condition of their sick relative and about the hostility of some staff members working at the emergency centre.

Supporting the Patients Right Charter that every citizen has the right to complain about healthcare services, the Independent Health Complaints Committee (IHCC) was constituted in November 2015 by the Western Cape Health Minister, Dr Nomafrench Mbombo (Notice February 2016 WCGD). The main purpose of the committee is to investigate and make recommendations about complaints received by the Minister or Head of Department from patients and relatives in the Western Cape. The IHCC is thus part of the 'rules of the waiting game' to ensure patients complaints are handled according to Departmental standards and to the patients satisfaction.

4.3.5 Theme 5: The waiting game plan

The waiting game plan theme proposes the following possible solutions to improving waiting time:

4.3.5.1 Patient and family members' proposals

Data emerged from the interviews that guided a new 'game plan' for the 'waiting game'. Patients and family members suggested possible solutions to improve long waiting time. When asked what could be done to reduce long waiting time, the majority of participants

suggested the appointment of more healthcare staff at the emergency centre. These are extracts from the data set:

> *"More staff is needed at the emergency centre".* ***(Patient 1)***

> *"I think they should appoint more doctors"* ***(Patient 5)***

Suggestions by family members reiterate the appointment of more healthcare staff, which will contribute to improve LWT at the emergency centre. These were suggestions made:

> *"We need more doctors, sisters and nurses. That is most important".* ***(Family member 1)***

It was suggested that elderly patients should be made comfortable while they wait. This gesture will assist in making the wait more bearable. This was the comment:

> *"They should get a place where they can make the elderly comfortable, and then the wait won't be that bad. You must see how my mother sits now, with her head between her legs".* ***(Family member 1)***

The use of the Community Service Medical Officers (COSMOS) was another proposal:

> *"The COSMOS can assist by doing the triage. This will bring relief to the waiting time, especially the green patients that wait so long".* ***(Family member 2)***

Other suggestions included: the availability of another 24-hour healthcare facility nearer to the patient's home to see the triage category green and yellow patients; the allocation of more medical doctors on duty during public holidays and weekends because all other health facilities are closed, except the private health facility.

4.3.5.2 Medical, nursing management and healthcare staff proposals

Members who had experienced long waiting times shared the same sentiment as patients and family members that more staff are required to improve the long waiting time in the EC. Further proposals were the referral of green patients to the local clinic or CHC. Other suggestions were the allocation of senior medical doctors on duty during public holidays and on weekends to ensure that decision-making regarding patient care is done timeously, hence improving waiting time for patients.

Proposals were made to divide the medical doctors to work in a structured manner within the treatment room. This will assist in streamlining patient care and improve patient waiting time. The couches within the treatment room are marked from beds 1 to 16. The idea is thus to assign one medical doctor to work beds 1-8, likewise a second medical doctor can attend

beds 9-16. Currently, medical doctors work in an unstructured manner and see patients according to their own choice, unless an urgent case presents.

There were different opinions regarding the use of a Primary Health Nurse Practitioner (PHNP) on a full time basis at the emergency centre to see the triage category green patients. These are the diverse comments from healthcare staff regarding the use of a full time PHNP at the emergency centre:

> *"I think it will be an advantage if the clinics can stay open later and if we have a better referral system, which we don't have at Paarl hospital".* ***(Staff member 3)***

> *"Yes, of course if we can get a PHNP during the week it will be of great assistance to see the green colour coded patients".* ***(Staff member 5)***

> *"I don't think the appointment a PHNP will assist us. This will let patients come to the emergency centre more for minor cases".* ***(Nursing management 1)***

> *"A full time PHNP is not needed. For 50% of the green patients a doctor's eye is needed".* ***(Medical staff 1)***

Presently, a PHNP is employed on weekends from 08h00 until 16h00 or from 10h00 until 18h00 to see the triage-category green patients.

Further proposals were the education of patients and family members on how the triage system works and the purpose of the emergency centre. Suggestions made included the use of electronic media to convey information regarding emergency centre visits in the waiting room, and printed media i.e. posters and information leaflets. The selection of a new queue marshal to direct and answer patient and family members' questions was another proposal to improve service delivery at the emergency centre.

Another proposal, was that the triage-category yellow and green patients should be seen separately from the triaged-category red and orange patients to enhance patient flow.

4.4 SUMMARY

This chapter presented the findings on factors that contribute to long waiting time for patients at the emergency centre of a regional hospital in the Western Cape, South Africa. The study determined that patients and family members were mostly dissatisfied with the long waiting time at the emergency centre of Paarl Hospital. The interviews revealed that a shortage of staff is a huge factor that contributes to the long waiting time for patients. Other factors identified during the study were patient overload, inefficient patient flow and inappropriate

use of the emergency centre. The interviews with patients and family members further revealed they had little or no knowledge of how the triage system works.

In addition, the dissatisfaction of patients and family members on long waiting time had a negative influence on the working environment for healthcare staff. Aggressive behaviour and continuous disruptions from patients and family members hindered healthcare staff in delivering timely care. The findings further discovered that patients and family members did not have the knowledge of how to complain regarding waiting long at the emergency centre. Possible solutions to improve long waiting time are presented as proposed by all participants. In chapter 5, the study's findings in relation to the literature will be discussed. A conclusion will follow and recommendations will be put forward.

CHAPTER 5
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In Chapter 1, the rationale and objectives of the study were put forward while Chapter 2 reflected the literature reviewed. In Chapter 3, the research methodology was discussed and in Chapter 4, the results of the study were presented.

This chapter will discuss the conclusions based on the findings of the study. Recommendations for improvement of long waiting time at the emergency centre of Paarl Hospital will be made.

5.2 DISCUSSION

The purpose of the study was to explore and investigate factors that contribute to long waiting time for patients at an emergency centre of a regional hospital in the Western Cape, South Africa. The goal was to gain insight from patients, family members, medical and nursing management, as well as healthcare staff, on factors that contribute to long waiting time for patients at the emergency centre.

In this study, it was found that staff shortages, patient overload, inefficiencies in patient flow and inappropriate use of the emergency centre were factors that contributed to long waiting time. In addition, dissatisfaction and the unwanted behaviour of patients and family members because of the LWT were revealed. The results will be discussed in this chapter as they emerged in themes. Recommendations to improve long waiting time will then be presented.

5.2.1 The system that keeps us in the waiting game

Shortage of staff was a key factor as contributing to long waiting time for patients at the emergency centre of Paarl hospital. Other factors emerged, i.e. patient overload and inefficient patient flow which are discussed below.

5.2.1.1 Shortage of healthcare and support staff

The issue of staff shortages was seen as the most prominent factor in the feedback of all the participants that contributed to long waiting time at the emergency centre. Interviews mentioned cases of two healthcare staff accompanying a patient to the radiology department and the lack of porter assistance within the emergency centre. The consequence was that certain tasks, i.e. administering antibiotic and pain medication, or giving a tepid sponge bath to a baby with a high fever were delayed.

The literature reviewed showed a shortage of 44 780 nurses and 14 351 doctors in South Africa (Rondganger, 2013). In addition, the nurse and doctor patient ratio in the public health sector confirmed the shortages of health professionals in South Africa. The doctor-to-population ratio are 4024:1 people and the nurse-to-population ratio are 807:1 in South Africa (Wel meer dokters, maar nog te min, 2016:18). In December 2015 the South African Nursing Council (SANC) published the ratio per qualified nurse as 371:1 in the Western Cape (SANC, 2015:12).

Several media reports in South Africa reported staff shortages at health facilities in South Africa. Dr Heinrich Volmink, the Democratic Alliance spokesperson on Health in the Western Cape, South Africa, described the shortage of nurses as alarming (Fokazi, 2016: 4). In an interview with two Professors from the University of the Witwatersrand in Pretoria, it was mentioned that nursing is in a crisis in South Africa with huge shortages (Cullinan, 2015:21).

The doctor shortages are continuing to be a problem. Den Hartigh (2012:13) reported that the limited intake of medical students to medical schools in South Africa would lead to shortage of doctors in the next 15 years. Broomberg (2011:7) further noted the ratio of 5.2 doctors per 1000 people in South Africa. Furthermore, the introduction of the National Health Insurance (NHI) system by the NDoH to ensure equal access to healthcare for all citizens, will pose a challenge to rendering effective and quality care with a scarcity of human resources already experienced at health facilities (Naidoo, 2012:149).

The Departmental Standards for Emergency Centres (Circular H 44/2014:10) noted the critical roles of support staff, i.e. porters and clerks in the emergency centre. Results further revealed the lack of porter assistance in the emergency centre, which in effect hindered healthcare staff to render timely and effective care to patients. Discussions with the Deputy Director of Administration and Facility Management is proposed as this is a problem that can be addressed without financial implications.

Another factor hindering the appointment of healthcare staff is the availability of funds to fill posts. The National Treasury is responsible for the allocation of funding to the health sector in South Africa and has allocated R168.4 billion towards healthcare for the 2016/2017 period (Pitso, 2016). However, a comment by the NDoH finance minister Mr Pravin Gordhan, highlighted the challenge that healthcare is facing. He states, “Health financing is complex because the demand is unavoidably exceeded by available funds” (Pitso, 2016). Table 6 confirmed the shortages of nurses at Paarl hospital. There should be 452 nursing posts on the fixed establishment, but only 352 are filled. This leads to a gap of 100 nursing posts that are not filled due to unavailability of funds.

The study found that shortage of staff as confirmed in other studies are experienced at the emergency centre of Paarl hospital (Naidoo, 2012:149). Urgent attention is needed to address this problem to ensure quality, safe and timeous care to patients.

5.2.1.2 Patient overload

Patient caseload was another factor that contributed to long waiting time at the emergency centre. Healthcare staff interviewed raised their concern regarding delayed care to patients. These included delays in carrying out timely orders, for example performing an electrocardiograph as ordered by a medical doctor; performing a urine test; and a delay in giving pain and antibiotic therapy. Thus, when patient caseload exceeds it limits at the emergency centre the patients wait longer for their treatment.

Gaieski, Mikkelsen, Band, Pines, Massoni, Furia, Shofer and Goyal (2014:3) holds that early goal-directed antibiotic therapy in the emergency centre has been found to be a key deterrent in mortality. Pascasie and Mtshali (2014:182) concluded that patient overload in emergency centres should be addressed as it is related to an increase in patient distress, inefficient service delivery, unnecessary complications and at times, loss of life. Patients and family members in this study conveyed similar concerns regarding the long waiting time at the emergency centre.

The immigration and influx of people to the Western Cape has put a huge strain on health services, including the emergency centre of Paarl hospital. Donnely (2012) reported in the Mail & Guardian in 2012 that the Western Cape is the fastest-growing province in South Africa, increasing from 4.5-million to 5.8-million.

Increase patient workload contributed to the long waiting time experienced by patients at the emergency centre. As was found in a study by Boyle, Beniuk, Higginson and Atkinson (2012:2) crowded emergency departments threaten delivery of timely care.

5.2.1.3 Inefficiencies in patient flow

A factor hindering patient flow was the delay in laboratory results. The turn-around-time for laboratory results was mentioned as taking longer than expected by a patient and by clinical staff members. Mehmood, Khan and Khursheed (2012:529) reported similar results where they found the use of more than five diagnostic tests and diagnostic imaging to be major factors contributing to the delay of care to patients in the emergency centre.

Another factor that contributed to inefficiencies in patient flow was the geographical layout of the emergency centre. Healthcare staff had to walk from one end to the other to fetch equipment or do a procedure, i.e. an electrocardiogram. Eagle, 2015 mentioned in a

newspaper report that more interest is shown in patient flow, efficiency and patient satisfaction, therefore one needs to determine functionality and build the EC around it.

Other factors mentioned during the interviews were the inexperienced doctors working in the EC. The statement was made that inexperienced medical doctors are hesitant to make a decision leaving patients waiting a long time for an outcome and waiting for a specialist to make a decision. Similar results were found in the United Kingdom. Sen, Hill, Meron, Rae, Hughes and Roop (2010:366) found in their study that junior doctors working in emergency centres, struggled to make decisions and recommended for consultants to play a more active role. Similarly, Donnoly (2015:30) reported in the Telegraph of the major shortfall of senior doctors over weekends at emergency centres in England. The report further revealed that no consultants worked over weekend nights, leaving it to the junior doctors to make decisions.

To improve efficiency in the emergency centre, processes are needed to address the flow within the emergency centre of Paarl hospital. The use of LEAN management principles to address patient flow in emergency centres has proved to be highly successful. Johnson and Capasso (2012:237) reported that to improve the flow in the EC, one must understand how the process is perceived (voice of the customer) and how the process is presently working (voice of the process). The external NCS audit done in October 2016 at Paarl hospital revealed the emergency centre failed this measure of waiting time.

In order to improve efficiency and customer services, Groote Schuur hospital, a tertiary health facility in the Western Cape, has implemented LEAN initiatives successfully at various areas in the facility to improve service delivery to patients (Chowels, 2016). Equally, New Somerset hospital also in the Western Cape implemented LEAN principles at their orthopaedic clinic, which proved to be successful, and led to improved patient care and patient satisfaction (Price, 2014:198).

Patient flow accounts for delay in services to patients at the emergency centre. The World Health Organisation's (2013:9) six dimensions of quality (effectiveness, efficiency, accessibility, patient-centeredness, equality and safety could be compromised when patients experiences long waiting time to see a specialist and waiting for blood results.

5.2.1.4 Inappropriate use of the emergency centre

Staff interviews concluded that some patients use the emergency centre incorrectly, especially the triage-category green patients. One clinical staff member stated that it look as if patients come to the emergency centre only to obtain a sick certificate.

Other comments made were the use of the emergency centre to acquire all diagnostic tests instead of going to the clinic. Durand, Palazzolo, Tanti-Hardouin, Gerbeaux, Sambuc and Gentile (2012:4) confirmed, as in this study, that patients use the emergency centre for diagnostic tests and radiography that are not available at the local clinics.

Similarly, two separate studies carried out at emergency centres in the Western Cape, South Africa, showed the inappropriate use of emergency centres for minor cases. In a cross-sectional descriptive study done by Hanewinkel, Jongman, Wallis and Mulligan in 2009 (2010:147) they confirmed that patients visiting the emergency centre of Paarl hospital 81.8% were triage category yellow and green patients. Equally, a study done at George Hospital in 2010 concluded that 65% of patients presented at the emergency centre during the study, were triaged green (Becker, Dell, Jenkins & Sayed, 2012:800).

Consequently, the unavailability of an after-hour clinic or CHC for patients in triage-category yellow and green accounts for a huge burden on emergency centre healthcare staff and services, leading to longer waiting times for urgent cases. That the need for an after-hour clinic or CHC is required is confirmed in the meeting minutes of the Paarl Hospital Facility Board (HFB) held In June 2011. It was noted that an HFB member held a discussion with the former Minister of Health in the Western Cape, Mr Theuns Botha, regarding extending the hours of clinics and Community Health Centres (CHC) (HFB, 2011).

A comment was made by a staff member that patients are seen at the clinic only on an appointment basis, thus when they do not have an appointment they come to the emergency centre for help. Similar results were reported in the study by Becker, Dell, Jenkins and Sayed, (2012:801) where patients disclosed that only a set number of patients get seen at the clinic. This result was confirmed at a micro-session workshop presented by the Western Cape Government Health at Paarl hospital by a fellow colleague on 2 November 2016 (Hardine, 2016).

Inappropriate use of the emergency centre has been found to be a major contributing factor for long waiting time at the emergency centre. The accessibility of a 24-hour CHC will assist and prevent non-urgent cases visiting the EC of Paarl hospital.

5.2.1.5 Lack of computerised support

The time used by clinical healthcare staff to obtain patients' blood results, was another factor that contributed to long waiting time. Patients and healthcare staff felt this time away from the patient hampered care to patients. The study by Burström, et al (2013:5) found that a delay in getting blood results posed an obstacle to efficient patient care. As suggested by a participant in this study, point-of-care testing can assist in timely care to patients. Similar

results found by Oredsson et al (2011:4) confirmed that point-of-care testing can lead to a shorter turn-around-time. Furthermore, the delay in obtaining timeous blood results can be overcome by making use of the three ward clerks allocated to the emergency centre, one of which is on day duty and two are on night duty, working opposite shifts. This should improve the productivity of doctors as well as patient flow in the EC.

The lack of computerised support has been evident in this study and thus hindered efficient care to patients. The ultimate goal should be to improve service delivery to patients visiting the emergency centre, thus increase efficiency in workflow and ultimately to satisfy patients.

5.2.2 The waiting room puzzle

Major concerns from patients and family members were their dissatisfaction of long waiting time and the lack of communication from healthcare staff.

5.2.2.1 Patient and family members experiences of LWT

Patients experienced the long waiting time at the emergency centre as frustrating and some of them left the emergency centre, but came back the next morning. They also felt ignored by the healthcare staff and some of them feared their condition would deteriorate while in the waiting room.

Participants reported that there was a shortage of doctors, especially during the night and on public holidays. Their concern was shared by healthcare staff who reiterated the notion that additional senior medical staff should be on duty after hours, over weekends and on public holidays in order to assist with decision-making about patients in the emergency centre.

Family members also described their anguish about not knowing what was happening with their sick relative. Anger towards healthcare staff was experienced during interviews that led to an undesirable atmosphere in the emergency centre waiting room. The abovementioned bring into line a study by Burström et al (2013:7) which found that for the client to be calm in the emergency centre, it is important that they are informed on how the emergency centre functions and that time is taken to listen to them.

Emergency centres exist to provide timeous and effective care for patients in order to have a positive outcome. This study found that the majority of patients and family members experienced long waiting times, especially the patient triage-category orange, yellow and green.

5.2.2.2 Patient Dissatisfaction

In South Africa, there have been several media reports where complaints regarding long waiting times at emergency centres (EC) raised concerns from the public, resulting in

compromised patient care. The problem that patients and family members had regarding the attitude of some healthcare staff at the EC, also did not contribute to a positive patient experience. Some participants experienced that healthcare staff were rude and ignored them.

The dissatisfaction about the behaviour of some of the healthcare staff working in the emergency centre, supported comments made during the Client Satisfaction Surveys (CSS) done in 2015 at the EC. These included 'wish the service was as beautiful as the hospital and the hospital looks good from the outside but the people working for the hospital is not very polite'. The survey also revealed that the majority of patients were unhappy with the nurses who did not listen to their concerns (Paarl hospital CSS, 2015:14, 23). Client satisfaction surveys are a means to address dissatisfaction from patients and family members. When hearing the voice of the patient, service delivery can be improved.

Results from this research study also revealed the gap that exists where patients and family were dissatisfied with the long waiting time, but did not seem to know how to lodge a complaint. Only one patient suggested that the problem should be reported to the Chief Executive Officer (CEO) of the hospital. Moreover, patient and family members' dissatisfaction about the long waiting time is evident by the emotions expressed and actions during their interviews. Participants mentioned feelings of anger, depression, children crying, as well as sadness about the long wait. Others mentioned they left the emergency centre only to come back the next morning.

In this study the feedback from patients and family members were mostly negative regarding certain staff attitudes at the emergency centre. These attitudes need to be addressed by the Medical Manager and Nursing Manager of the emergency centre.

Timely care and clear communication are important elements in patient satisfaction. As in this study, Khankeh (2013:6) found in Saudi Arabia that two-thirds of the participants indicated that waiting time was their main reason for dissatisfaction. Furthermore, the results from this study correlate with document review evidence where the statistics from the compliments and complaints register at Paarl Hospital in 2015 showed that the complaints about long waiting time at the emergency centre was a major problem (See Appendix 12).

5.2.2.3 Lack of communication with patients and family members during long waiting time

Patients and family members interviewed indicated the lack of communication from healthcare staff regarding reasons for the long wait and the condition of a sick relative. Other concerns included the mixed messages received from healthcare and security staff working

in the emergency centre, and participants felt the problem should be addressed. The findings in this study are supported by research carried out at an emergency centre in Gauteng, South Africa (Botes & Langley, 2016:5) where lack of communication between staff, patients and family members was found. However, there was contrasting feedback from healthcare staff regarding the abovementioned issues. Some staff members interviewed reported that they informed patients about the waiting time, while other members indicated a lack in communicating waiting time to patients and family members.

Field notes made on the 27 April 2016 (Hardine, 2016) confirmed the lack of communication experienced by patients and family members in the emergency centre. After various complaints from patients and visitors, a professional nurse went to the waiting room explaining the triage process and the reasons for the long wait. This gesture was well received by all present in the emergency centre waiting room.

The WCGH mission is to be patient-centred, therefore, effective communication with the clients on the expected waiting time, as well as communication regarding the condition of a sick relative, is an important step towards patient-centred care, and could contribute to patient satisfaction. There is a need for improvement regarding communication from healthcare staff working in the emergency centre. A focus on staff training can assist in improving communication to patients and family members visiting the emergency centre.

This study concluded that there is a lack in communication from healthcare staff to patients and family members. As pointed out by Burström, Starrin, Engström and Thulesius (2013:1), information about waiting time is vital for patient satisfaction in the emergency centre.

5.2.2.4 Patients and family members' experiences and knowledge of the triage system

Results obtained in this study found that patients and family members knew little or nothing at all about the triage system. Seibert, Veazy, Leccese and Druck (2014:4) found information is needed by patients and family members on the triage system, as well as reasons for delays at the emergency centre. Similarly, results were reported by Adeniji and Mash (2016:3) in Cape Town of the huge gap and lack of understanding by patients and family members about the triage system.

However, contrasting feedback from the healthcare staff varied regarding this aspect. Some felt that patients knew the system, while others said that there is a lack of knowledge on this issue. During data collection, a triage poster at the entrance of the EC did not seem to catch the eye of patients and family members. The suggestion is that the poster be lowered and in

turn that the poster be used on information sessions regarding the triage process while patients and family members wait in the waiting room.

The National Core Standards for health establishments in South Africa identified waiting time as one of the six priority areas to be addressed. In addition, the Departmental Standards for Emergency Centres (Circular H44/2014), which explicitly addresses the communication and management of waiting at the EC, proposes continuous information to patients and family members.

5.2.3 The waiting game drain

Healthcare staff described their fear as regards to patient and family member's behaviour during the long waiting time as unacceptable.

5.2.3.1 Healthcare staff experiences and concerns of patients and family members' behaviour during long waiting time

In a qualitative study done by MacKinnon (2009:11), he noted that healthcare issues such as long waiting time contribute to the incidence of violence in emergency centres. Healthcare staff working within the emergency centre experienced the behaviour from patients and family members as a major obstacle while carrying out their duties. Participants mentioned that they are shouted at by patients – especially the family members – and that they felt unsafe. The nursing staff working at the triage station particularly experienced the brunt of the aggression and violence towards them. Similar results were reported by Siddiqui (2012:841) where aggression towards triage staff was experienced especially from patients and family members.

One medical management staff member reported that he was called a racist when trying to explain the reasons for the long wait and the triage system. A safe working environment for healthcare staff is needed to provide safe and quality patient care. Kennedy and Julie (2013:8) hold that threats of violence against healthcare staff have a negative influence on their work performance. The findings further showed that psychiatric patients treated within the emergency centre, posed another challenge and contribute indirectly to delay in care. These disruptive, aggressive and violent behaviours hampered healthcare staff to deliver effective and efficient patient care. Wolf, Delao, Perhats, and Des Plaines (2013:5), found that nurses are vulnerable in the emergency centre, and interventions are needed to identify violent behaviour early.

An important finding of this study, which requires intensive thought, was the concern of healthcare staff regarding the aggressive behaviour from patients and family members towards them.

5.2.3.2 Staff experiences of interruptions during the long waiting time

Interruptions during healthcare staff members' working time in the emergency centre, prohibit them from delivering patient-centred care. Interruptions included patient and family members' queries, questions on why the waiting time are so long, looking for a sick relative, and wanting to visit an ill relative admitted in the emergency centre. The nursing staff working in the triage station felt the interruptions the most. They felt that these disturbances posed a threat to efficient patient care, especially at the triage station. Other aspects mentioned were answering phone calls as well as looking for gloves or a trolley to do a procedure.

In a study by Westbrook and Li (2013:119), they found interruptions in work activities are associated with medication errors. Likewise, Kosits and Jones (2011:15) found that 3.3 interruptions per hour occurred with professional nurses working in the emergency centre while they were performing nursing duties. Field notes made during the data collection period correspond with the data from healthcare staff regarding interruptions that occur while performing their task (Hardine, 2016:3).

A queue marshal was appointed by the Hospital Facility Board to welcome and direct patients and family members at the emergency centre, handle their relevant questions and concerns. The purpose behind this was to relieve the burden on the healthcare staff at the emergency centre and to improve patient satisfaction. Healthcare staff needs to provide attention to the patient in front of them. In effect, it aims to assist in minimizing interruptions of the healthcare staff's activities. However, feedback especially from nursing staff working at the triage station, was that the queue marshal was often not at his station, leaving them to manage patient questions and concerns.

During the data collection period the queue marshal was dismissed due to unprofessional conduct and the process was started to appoint a new queue marshal. Again the burden was placed on the healthcare staff working at the triage station.

Healthcare staff experienced the interruptions during their work processes as being negative and disturbing. A concerted effort should be made by the emergency centre management staff to alleviate the pressure on healthcare staff to limit interruptions.

5.2.4 The rules for the waiting game

To ensure a positive patient experience and ultimately patient satisfaction, quality healthcare must be shared by healthcare providers, patients and policy makers. Legislative frameworks are ways of ensuring that quality and safe healthcare are provided to all citizens in South Africa and the Western Cape. Implementing the National Core Standards (NCS), Healthcare 2030, and Departmental Standards for Emergency Centres, Quality Assurance and Complaints Management are such structures that provide standards and criteria driving healthcare in the National Department of Health (NDoH) and the WCGH.

5.2.4.1 National Core Standards

Initiatives are needed to implement the National Core Standards (NCS) to improve the quality of care to the patients at the emergency centre. The NCS prescribed clear instructions that serious patients must be attended to first. Furthermore, it also states that waiting time should be monitored and plans to reduce waiting time should take place at health facilities (NDoH, 2011:19).

5.2.4.2 Healthcare 2030 and Departmental Standards for Emergency Centres - Circular H 44/2014

The Healthcare 2030 and Departmental Standards for Emergency Centres (EC) (Circular H44/2014:12) in the Western Cape have clear guidelines to address long waiting times. Key outputs for patient satisfaction in the EC are the length of waiting time, the waiting experience with healthcare staff which includes dignity and empathy, quality of explanation as well as pain management (Departmental Standards for Emergency Centres, Circular H44/2014:12). Imposing policy within the EC can promote patient satisfaction and better patient outcomes.

5.2.4.3 Quality Assurance in the Emergency Centre

The complexities of the emergency centre need a quality assurance approach to address inefficiencies within the EC. Circular H102/2016 Patient Centred Experience (2016:4) of the WCGH aims to ensure that services are of high quality and states that standards must be met. Willems and Moodley (2012:2) note although waiting time surveys have shown that waiting times are long, implementing changes is slow.

The results indicated that patients and family members were unhappy with the quality of service they received at the emergency centre. Long waiting time, lack of communication and hostile behaviour from healthcare staff were some of the weaknesses they experienced at the emergency centre. Applying the National Core Standards strategies should be central in service delivery within the emergency.

The WHO's six dimensions of quality noted in the literature review, i.e. effective, efficient, accessible, patient-centred, equitable and safety, compromised quality care in the emergency centre of Paarl hospital (WHO, 2013:9). Agbenorku (2013:39) states it is critical for the patient to receive quality care, especially if they are in pain and need emergency care.

Support from Senior Management at Paarl hospital is important to ensure quality care is given to patients and long waiting time is addressed. Furthermore, a quality assurance programme cannot be implemented without the active participation by all healthcare staff.

Using the LEAN principles of identifying waste within the emergency centre is one such programme that can address LWT thus improving quality of service and patient satisfaction.

5.2.4.4 Complaints Management in the Emergency Centre

The complaints statistics reviewed, as well as written and media complaints regarding the long waiting time, supported the evidence from patients' and family member's disappointment on long waiting time experienced at the emergency centre of Paarl hospital (See Appendices 12, 13, 15). Reader, Gillespie and Roberts (2014:1) hold that complaints provide valuable feedback on safety-related issues in health facilities.

The Batho Pele principles are an important driver for service delivery to patients. By redressing patient complaints on LWT, a positive outcome can be achieved. Continuous evaluation of patient satisfaction is needed in the EC in order to identify challenges and address them appropriately. This will ensure positive patient outcomes and patient satisfaction.

5.3 CONCEPTUAL FRAMEWORK

The point of departure for the conceptual framework was patient satisfaction. Patients seeking emergency care expect quality and prompt treatment when visiting the emergency centre (EC). Long waiting time at the EC results in dissatisfied customers and the consequences are resentment, complaints and verbal abuse towards healthcare staff. Shortage of healthcare staff is adding a further barrier in delivering quality care to patients (Eygelaar & Stellenberg, 2012:1). Legislative policies such as the National Core Standards, Healthcare 2030 and Departmental Standards for Emergency Centres - Circular H 44/2014, Complaints Management and Quality Assurance sought to provide a new way forward in accomplishing patient satisfaction.

5.4 LIMITATIONS OF THE STUDY

A limitation for this study is that the study was done at only one emergency centre of a Regional hospital in the Western Cape, South Africa. A further limitation could be that only

patients and family members visiting the emergency centre from 1 March 2016 to 31 May 2016 were eligible for the study.

5.5 SUMMARY

A case study with a qualitative approach was done to explore factors that contribute to long waiting time for patients at the emergency centre of the Paarl hospital. This study found that staff shortages are a major contributing factor to long waiting time for patients at the emergency centre. In addition, patient overload, inefficiencies in patient flow and inappropriate use of the emergency centre further contribute to the problem of delay in patient care.

Important in the findings is that patients and family members felt dissatisfied about the long waiting time they experienced at the emergency centre. Moreover, they had little or no knowledge of how the triage system functioned in the emergency centre. The results further revealed that aggressive, violent behaviour and interruptions towards healthcare staff in the emergency centre, added to delays in care. Lack of support systems and staff, i.e. computer programs for laboratory tests and porter assistance, are additional causes that contributed to long waiting time for patients.

Finally, the National Core Standards, instituted by the National Department of Health and the Departmental Standards for Emergency Centres Circular H44/2014 in the Western Cape, are standards proposed to ensure timeous care of patients visiting the emergency centre. Improvement initiatives, such as measuring waiting time and improving the waiting experience of the patient in the emergency centre, are strategies to address this problem.

5.6 RECOMMENDATIONS

Based on the findings of the research study, the following recommendations are made to improve long waiting time at the emergency centre of Paarl hospital. The recommendations are presented in four blocks below in Figure 8 and are linked to the themes.

The system that keep us in the waiting game	The waiting room puzzle	The waiting game drain	The rules for the waiting game
• Alignment of healthcare staff to needs of EC • Consult District Health services for an 24-hour CHC • Education of community • EC Clinical Head to address effective allocation of senior and junior medical doctors in EC • Re-visit task allocation of ward clerks	• Provide information leaflet on EC functioning to patients on arrival • Supervisors to address staff attitudes	• In-service training for staff to manage aggressive patients effectively • Support from porters to nursing in order to improve service delivery to patients	• Re-implementation of time stamp • Visible posters explaining the complaint procedure

Figure 8: Recommendations according to themes

5.6.1 The system that keeps us in the waiting game

Key proposals to address the shortcomings in the system inefficiencies were:

- Alignment of healthcare staff in the EC to meet the needs of the patients is required. Furthermore, the limited intake of medical students to medical schools in South Africa should be revisited in order to increase the throughput. In addition, the same should apply with the intake of nursing students.
- Consultation between relevant role-players such as the EC and District Health Services to render and make available a 24-hour service to the community should continue. Communities should be actively involved in this consultation process regarding the necessity of such 24-hour health facilities within their community. This will result in hearing the voices of patients and community.

- Education of the community is needed on the appropriate use of the emergency centre i.e. for urgent cases only. In order to accomplish this, information leaflets and brochures should be made available in the emergency centre waiting room. Information posters should be posted at eye level and in a clear language that the patients understand.

- The EC Clinical Head should make a concerted effort in the effective allocation of senior versus junior doctors in the emergency centre. This will assist in timeous care to patients visiting the EC.

- To re-visit the tasks done by ward clerks on day and night duty to assist with the retrieval of laboratory results. In addition, an efficient computer software programme should be set up where medical staff can retrieve different patient data through one integrated computer system. This programme will assist healthcare staff in rendering efficient and quality patient care and ultimately improve the long waiting time.

5.6.2 The waiting room puzzle

Patients and family members were perplexed about what was happening in the emergency centre. Furthermore, lack in communication as well as hostile attitudes from healthcare staff towards patients and family members added to the confusion. Therefore, the following recommendations are put forward:

- Information leaflets with specific information on the triage system should be provided to patients and family members on arrival at the emergency centre (EC). The queue marshal can be utilized to inform them about the EC's functioning. This will bring clarity on what is happening in the EC (See Appendix: 16).

- The EC Medical and Nursing Manager from EC are to address unfriendly staff attitudes. Healthcare 2030 vision is to be patient-centred and deliver quality care. Therefore, healthcare staff should be professional in their interaction with patients and live the values of the WCGH by being caring and responsive, to work with integrity and respect all citizens.

5.6.3 The waiting game drain

Healthcare staff mentioned that shortages of staff, lack of support staff and inappropriate use of emergency centre (EC) are factors that contribute to LWT for patients at the emergency centre. Other concerns were the interruptions during their working time as well as the aggressive behaviour of patients and family members that had a negative effect on service delivery to patients. Recommendations to address these are:

- Continuous, focused, in-service training of healthcare staff on managing difficult and aggressive clients in the EC is recommended. A Standard Operating Procedure to be implemented in the EC for managing aggressive and disruptive patients according to the Mental Health Care Act, 2002. To create a safer work place for patients and

healthcare staff in EC, the Occupational Health Practitioner should analyse adverse incidents reported and join forces with EC management and healthcare staff to manage aggressive behaviour effectively.

- Discussion between the EC Clinical Head and the Deputy Director of Administration and Facility Management should follow concerning the allocation of porters to the EC. No financial resources will be needed, as the discussion should focus on the optimum and effective usage of porter assistance within the EC. Support staff, i.e. porters, play a valuable role in the emergency centre which can ultimately strengthen healthcare staff capabilities working in the EC to render timeous and quality care to patients.

5.6.4 The rules for the waiting game

The implementation of the NCS from the NDoH has clearly set the scene in establishing the benchmark to deliver quality care to patients at health facilities, i.e. the emergency centre. Recommendations that will assist in rendering quality care to patients and family members at the emergency centre are:

- The re-implementation of a time-stamp in order to monitor waiting time for patients. This will assist the Emergency Clinical Head and Nursing Manager in identifying where patient flow inefficiencies occur. Willems and Moodley (2016:11) propose some of the following to measure waiting times: a barcode scanner, fingerprint scanner and facial recognition technology.

- Displaying a visible and visual complaints procedure in the waiting room. Patients should be given information about services they will receive in the EC as well on the waiting time. This information should also include the process of laying a complaint when they are not satisfied with the service.

5.6.5 Future research

The following areas for future research are proposed:

- The experiences of family members of psychiatric patients on care received within the emergency centre.

- The experiences of healthcare staff working in the emergency centre regarding aggressive and violent behaviour towards them.

5.7 DISSEMINATION

These research results will be shared with the Senior Management of Paarl Hospital as well as the Hospital Facility Board. The expectation is that some recommendations made can be implemented at the emergency centre to improve on waiting time for patients.

The belief is also to publish the results of this study in a peer reviewed journal in addition to present it at academic congresses.

5.8 CONCLUSION

Lengthy waiting time at emergency centres indicates that it is a global problem. This is also the position at Paarl Hospital's emergency centre. The research study concluded that factors that contribute to long waiting time for emergency centre patients are staff shortages, patient overload; inefficiencies in patient flow; inappropriate use of the emergency centre; and lack of support services, i.e. portering and computer programs for laboratory tests. In addition, the long waiting time had undesirable effects where dissatisfaction on lengthy waiting time was experienced by patients and family members. Moreover, lengthy waiting times contributed to unwanted behaviour from patients and their family members towards healthcare staff.

The results also found that patients and family members had little knowledge of how the triage system works. In addition, the evidence revealed a lack of communication from healthcare staff on the waiting time or the condition of a sick relative. Furthermore, the findings indicated that patients and family members experienced unfriendly attitudes from some of the healthcare staff during the long waiting time.

Healthcare staff were exposed to the brunt of aggressive and violent behaviour towards them, which hampered timeous care to patients in the emergency centre. This happened especially with healthcare staff working at the triage station. In addition, continuous interruptions from patients and family members contributed to a delay in care such as administering of pain medication, and carrying out nursing activities, e.g. performing an electrocardiogram.

Documents reviewed concluded long waiting time is experienced by patients and family members. In addition, written complaints and the compliments and complaints register emphasized long waiting time at the emergency centre as a major concern.

Finally, this research can inform health managers regarding pragmatic interventions at emergency centre level as well as health policy review and implementation. There is room for improvement in waiting time at the emergency centre of Paarl Hospital. An information leaflet was drafted by the researcher with the necessary information that could assist patients

and family members in understanding how the emergency centre functions with specific details regarding the triage process. The leaflet was submitted to the emergency centre (EC) Medical Manager as well as the Nursing Manager from EC. This information gap was identified during data collection and can contribute towards providing a positive patient experience at the emergency centre. Other recommendations to improve on long waiting time have been formulated and put forward.

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Appendix 1(i): Ethical approval from Stellenbosch University

Approved with Stipulations

New Application

26- Nov -2015

Hardine, Joslyn JM

Ethics Reference #: S15/10/257

Title: Factors that Contribute to Long Waiting Time for Patients: An Emergency Waiting Room Case Study of Paarl Hospital.

Dear Ms Joslyn Hardine,

The **New Application** received on **28-Oct-2015**, was reviewed by members of **Health Research Ethics Committee 2** via Expedited review procedures on **11-Nov-2015**.

Please note the following information about your approved research protocol:

Protocol Approval Period: **11-Nov-2015** -**11- Nov -2016**

The Stipulations of your ethics approval are as follows:

T Jeneke to sign section 3 of the investigator declaration.

Informed consent - please state if participants data will be used or not in the event a participant chooses to withdraw.

Please remember to use your **protocol number** (**S15/10/257**) on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Translation of the consent document to the language applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372

Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States

Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western

Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and documents please visit: www.sun.ac.za/rds

If you have any questions or need further assistance, please contact the HREC office at 219389819.

Included Documents:

Checklist

CV G Lourens

Consent form

CV J Hardine

CV T Jeneke

Protocol

Application form

Permission to conduct research at Paarl Hospital

Protocol Synopsis

Investigator declarations

Sincerely,

Ashleen Fortuin

HREC Coordinator

Health Research Ethics Committee 2

Appendix 1(ii): Ethical approval from Stellenbosch University

Ethics Letter

21-Jan-2016

Ethics Reference #: S15/10/257
Title: Factors that Contribute to Long Waiting Time for Patients: An Emergency Waiting Room Case Study of Paarl Hospital.

Dear Ms Joslyn HArdine,

Your letter dated 6 January 2016 refers.

We acknowledge your response to stipulations and confirm that it is in order.

You may proceed with the research project

If you have any queries or need further help, please contact the REC Office 219389819.

Sincerely,

REC Coordinator
Ashleen Fortuin
Health Research Ethics Committee 2

Appendix 2: Permission obtained from department of health

Western Cape Government
Health

STRATEGY & HEALTH SUPPORT
www.capegateway.gov.za

REFERENCE: WC_2016RP43_553
ENQUIRIES: Ms Charlene Roderick

Private Bag x 3012
Paarl
7621

For attention: **Ms Joslyn Hardine**

Re: **FACTORS THAT CONTRIBUTE TO LONG WAITING TIME FOR PATIENTS: AN EMERGENCY WAITING ROOM CASE STUDY OF PAARL HOSPITAL.**

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in accessing the following sites:

Paarl Hospital	**Breslau Kruger**	**Contact No: 021 860 2508**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
4. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR A HAWKRIDGE
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE: 2/3/2016
CC: L PHILLIPS

DIRECTOR: KLIPFONTEIN/ MITCHELLS PLAIN

Appendix 3: Permission letter to institution

4 Tanner Street

Paarl

0715807162

22 October 2015

Dear Dr B Kruger

Permission to carry out a research study at the emergency centre of Paarl Hospital - Joslyn Hardine

I am 1st year Master's student at the University of Stellenbosch Nursing Division. I hereby request your permission to carry out my research at the emergency centre of Paarl Hospital during March 2016 till May 2016.

Research Topic: Factors that contribute to Long Waiting Time for Patients: An Emergency Waiting Room Case Study of Paarl Hospital.

The main aim of the study is to investigate factors that contribute to long waiting time for patients at the emergency centre of Paarl Hospital. The rationale for the study is based on the National Core Standards for Health Establishment in South Africa: National Department of Health which has been developed to improve service delivery to the public. Gaining in depth information from patients, family members, management and staff from emergency centre, who is at the forefront of the long waiting time experience, can assist in improving service delivery at the emergency centre and identify initiatives to improve waiting time.

The study will require that I interview triaged category orange, yellow and green patients in the emergency centre, family members who accompany their sick relative to the emergency centre as well as Management and staff from the emergency centre. Furthermore, document reviews of triage waiting time statistics, hospital statistics and hospital and management reports and other relevant documents pertaining to long waiting time will also be carried out.

Interviews with staff from the emergency centre will be conducted by fieldworker, Ms Tersia Jeneke, who is a retired Professional Nurse and is still working for an external agency.

Dr Guinevere Lourens will be my supervisor. If further information is required, please contact myself at: 021 8602504/ 0715807162 or Dr Lourens at 0827791726.

Kind Regards

Ms JM Hardine

Approved.

4/3/2016

Appendix 4: Permission obtained from institution

Western Cape Government
Health

Paarl Hospitaal/Hospital

VERWYSING/ REFERENCE: SP-4101

NAVRAE/ ENQUIRIES: DR. B. KRUGER

DATUM/DATE: 08/11/2016

PAARL HOSPITAL

CASE STUDY RESEARCH PROJECT

Approval is granted for a case study research project on 'Factors that Contribute to Long Waiting Time for Patients: An Emergency Waiting Room Case Study of Paarl Hospital' by principle researcher J.M. Hardine.

Dr B Kruger
Chief Executive Officer

Date: 4 March 2016

C/o Berg River Boulevard & Hospital Street
tel: +27 860 2501 fax: +27 21 860 3055
Praktyknommer/Practice number: 5600480

Private Bag x 3012, Paarl, 7691
www.paarlhospital.com
Breskau.Kruger@westerncape.gov.za

Appendix 5: Participant information leaflet and declaration of consent by participant and investigator

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

Informed Consent and Information Leaflet: Participant Interview

Dear Participant

Ms Joslyn Hardine (Principle Researcher) and Ms Tersia Jeneke (Fieldworker) invites you to participate in this research study. Paarl Hospital, 021-8602504

Title of Research Study:

Factors that contribute to Long Waiting Time for Emergency Centre Patients: A Waiting Room Case Study of Paarl Hospital, Western Cape.

Introduction and Purpose

The purpose of this research is to hear the perspectives and experiences of patients, family members, Management and nursing staff from the emergency centre on factors that contribute to long waiting time for patients at the emergency centre of Paarl Hospital.

You are being asked to take part in this study because your perspectives and experiences on factors that contribute to long waiting time are important for this research project.

Procedure

Your participation will be a face-to-face interview with me or the fieldworker once only in a private consultation room where we will be using a voice recorder and make field notes. The interview will be approximately 1 hour.

Benefits

The information from this study may benefit you, other patients as well as the management and staff at the emergency centre to present possible improvement initiatives to address long waiting time in order to improve service delivery and patient and worker satisfaction.

Voluntary participation/Withdrawal

Participation in this study is voluntary and you are under no obligation to participate. You can withdraw at any time without any repercussions. It will be discussed with you and consent will be obtained from you for information gathered up to the point of withdrawal, to be used in the study.

Risks

There will be no risk involved during this process.

Confidentiality

Information collected will be kept confidential at all times. I will keep record of the recordings together with a transcription. The data will be stored in a secure place and only my supervisor and I will have access to your interview. Information from the study may be published for research purposes but your identity will be kept confidential.

Payment

You will not be paid to take part in the study but refreshments will be served before the interview.

Costs

There will be no costs involved for you, if you do take part.

Ethics Approval

The study has been approved by the Health Research Ethics Committee of Stellenbosch University and the Western Cape Government of Health.

Questions:

If you have any questions about this study, you may contact Ms JM Hardine at 021- 8602504.

Thank you for your time and willingness to participate in this study.

The above aspects have been discussed with the participant. It is my finding that the participant understands the risks, benefits and obligations involved in participating in this study.

I did/did not use an interpreter.

Signature Investigator ……..... **Date** ……

Consent to Participate in this Research Study:

I.....voluntarily agree to take part in this research study and that I can withdraw or refuse to continue with the interview at any time without any penalty.

I hereby give voluntary consent to be part of this research project and was informed about the risk and benefits of this study.

…….. ……

Signature of Study Participant Date

…….. ……

Printed Name of Study Participant Date

…….. ……

Signature of Investigator/ Designee Date

Obtaining Informed Consent

Declaration by investigator

I *(name)* ……. declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research as discussed above.
- I did/did not use an interpreter.

Signed at (*place*) .....…….....…… on (*date*) ……..…… 2016.

Signature of investigator Signature of witness

Declaration by Interpreter

I *(name)* …… declare that:

- I assisted the investigator (*name*) …….. to explain the information in this document to (*name of participant*) …… using the language medium of Afrikaans/Xhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....…….…… on (*date*) ……..…… 2016.

Signature of interpreter **Signature of witness**

Appendix 6: Interview guide and probes

Q1. Describe your experience of waiting time at the emergency centre.

Q2. What are the factors contributing to long waiting at the emergency centre?

Q3. What are your major concerns on long waiting at the emergency centre?

Q4. What can possibly be done to improve waiting time at the emergency centre?

Q7. Do you have any other comments?

Probes

How do you experience the service at the emergency centre?

Why do you think there such long waiting time at the emergency centre?

Do you have any recommendations for this problem?

Appendix 7(i): Confidentiality agreement with data transcriber

TL Philander
Rinquest Street 20
PAARL
7646

27 September 2016

I hereby agree that any digital recorded information I obtain as a transcriber during Ms. JM Hardine's research on "Factors that contribute to long waiting time for patients: A Waiting Room Case Study of Paarl Hospital" will be kept confidential on a permanent basis.

I will not inform anyone else about the content of the interviews. I will also abstain from making any duplicates of the recorded interviews. The recorded interviews will be deleted consequent to the completion of the transcription.

None of the content will be forwarded to any other persons under any circumstances.

Signature

Appendix 7(ii): Confidentiality agreement with data transcriber

P. Sherriff
108 School Street
NORTHEN PAARL
6546

11 October 2016

I hereby agree that any digital recorded information I obtain as a transcriber during Ms. J.M. Hardine's research on "Factors that contribute to long waiting time for patients: A Waiting Room Case Study of Paarl Hospital" will be kept confidential on a permanent basis.

I will not inform anyone else about the content of the interviews. I will also abstain from making any duplicates of the recorded interviews. The recorded interviews will be deleted consequent to the completion of the transcription.

None of the content will be forwarded to any other persons under any circumstances.

Signature

Appendix 8: Declaration by language and technical editor

Jill Stevenson
Copy Editor/Proof reader
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19 November 2016

To whom it may concern

Re: ***Copyediting and Proofreading of***
FACTORS THAT CONTRIBUTE TO LONG WAITING TIME FOR PATIENTS: A waiting room case study of Paarl Hospital by JOSLYN MAGDALENE HARDINE

I, Jill Diane Stevenson, hereby confirm that the changes made to the above thesis were to ensure consistency of grammar and language (concord, spelling, punctuation) and to the conformity of format (headings, indexing and references).

No other changes were made to the body of work submitted by the candidate (conclusions, recommendations, data, factual reporting or commentary).

Yours faithfully

Jill Stevenson
Certified Copy-Editor and Proof reader

Cell: 0833092927
Email: Jilldiane18@gmail.com

Appendix 9: Image of triage process at the entrance of EC – Paarl hospital

Researcher: Own picture.

Appendix 10: Triage waiting time statistics EC, Paarl hospital – 16 May 2016

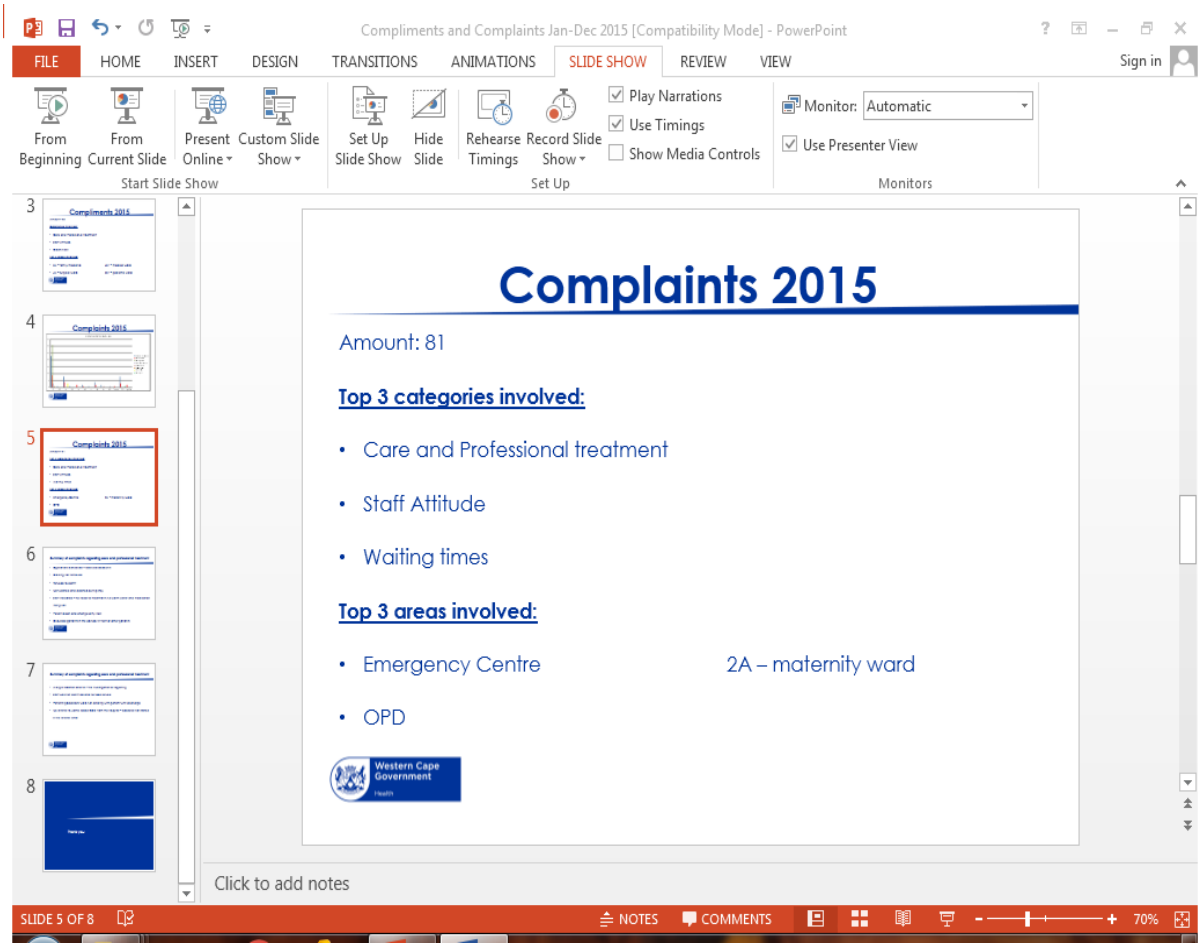
NUMBER OF PATIENTS WAITING TO BE SEEN INCLUDING TRAUMA		61	
TRIAGE COLOUR	**AMOUNT**	**HOURS WAITING**	
RED	**0**	**0**	
ORANGE	**15**	**12**	**14/5/2016**
YELLOW	**38**	**17**	**14/5/2016**
GREEN	**8**	**18**	**14.5/2016**

Appendix 11: Paarl hospital strategic workshop – 2016/2017 action plan

Problem	Action	Responsible person
Emergency Centre Waiting Times	• Agency budget to be managed by emergency centre Clinical Head	Clinical Head Emergency Services
	• Community Service Medical Officers to work 8-hours in the EC during a 4-week cycle thus 32-hours a month	Clinical Head District Health Services
	• Fast track of EC paediatric referrals	Clinical Head Paediatric Unit

Acknowledgement: CEO Paarl Hospital

Appendix 12: Complaints of Paarl hospital 2015



Acknowledgement: Occupational Health Practitioner – Paarl Hospital

Appendix 13: Media report of a patient complaint at the emergency centre of Paarl Hospital, in the Western Cape, South Africa

Pathetic service at Paarl hospital received

Patetiese diens by Paarl-hospitaal ontvang

My man is Sondag per ambulans vervoer na ongevalle. Hy het kanker en is terminaal.

Ons was 09:40 by die hospitaal en terwyl ons daar sit bring hy op en kry 'n asma-aanval. Geen hulp word gegee nie.

Sondagaand om 21:00 is daar nog glad nie na hom omgesien nie. Hulle het later net sy bloed getrek en hy is eers Maandag-namiddag in 'n bed gedruk en 'n drup gegee. Ek is 19:00 by die hospitaal weg met geen idee hoe dit met hom gaan en of hulle hom gaan opneem of nie.

Ek kon nie nog langer daar op 'n klipharde stoel sit ná twee dae wat ek daar reeds moes sit sonder eet of drink nie.

Sekuriteit het geweier dat ek my man sien. Ons moet by die ongevalle wag. Tot wanneer?

Ek moes net huis toe kom om darem skoon aan te trek. Doktors het ook my navrae geïgnoreer.

TELEURGESTELD PAARL

Disappointed Paarl

Appendix 14: Media clip of patients waiting at a CHC in the Western Cape, South Africa

A hospital that's just too popular

Picture: ARMAND YOO

LONG DELAY: Patients at the Mitchells Plain Community Healthcare Centre seen here and at other public health centres often face long queues for services and medication.

Acknowledgement: Tanya Farber – Cape Times

Appendix 15: Family member complaint

From:
Sent: 26 April 2016 10:09 AM
To:
Subject: RE:

Hi
Ek het die seun gebel en verduidelik. EMS en ons was oorgooi van werk, daarom vertragings – sy was oranje nommer 17...
Lekker dag

From:
Sent: 26 April 2016 08:22 AM
To:
Cc:
Subject: RE:

Dear
I have referred this complaint for investigation to the Emergency Medicine specialist who will provide feedback to

Regards.

From:
Sent: 25 April 2016 08:49 PM
To:
Subject:

Dear

I have received a complaint regarding the long wait of a patient (pensioner) . She came in at about 12: 00 and is still waiting to be attended to in a wheelchair at emergency / Casualty. I have received this call from her son from Pretoria, working for DPSA . Nor sure what is/ was the circumstances.

For your attention please.

Appendix 16: Proposed Paarl Hospital Emergency Centre (EC) Information leaflet for patients and family members

Vision: To be a hospital of choice for both staff and patients by being a centre of excellence

Code of Conduct healthcare staff in the EC: To treat all patients with respect, courteous and fairness.

What is the responsibility of the patient?

To be courteous and respectful towards other people receiving care and members of the healthcare team.

Information about the EC

- Paarl Hospital Emergency Centre (EC) is open 24 hours, including public holidays;
- The purpose of the EC is to treat urgent cases;
- Non-urgent cases must be treated at the nearest local clinic or community health centre;
- Patients arriving at the EC will be triaged by a triage nurse.
- Triage is a colour coded system used to determine how serious your condition is. Depending on your colour code, you will either be directed to the treatment room for attention or the waiting room;
- Please inform the triage nurse if your condition gets worse while you are waiting in the waiting room;
- The triage categories are as follows:
  - Triage category RED
  - Triage category ORANGE
  - Triage category YELLOW
  - Triage category GREEN
- Patients who are seriously ill and need urgent care will be seen first
- Patients are therefore not seen in order of arrival but in order of how ill they are

- You can receive visitors while been treated in the EC with the permission of the attending medical doctor, but it is limited to one (1) per patient;
- Visitors can be asked to leave when diagnostic tests and procedures need to be done;
- Name one (1) family member to enquire about your condition. The following number can be contacted for enquiring about a patient – 021 860 2714.
- You are asked to send valuables home with a relative. The EC cannot accept responsibility for loss of valuables;
- Asked the doctor for a medical certificate if needed before discharge;
- Compliments and complaints regarding services at the EC can be submitted in the compliments and complaints box at the main entrance of the EC or contact the Head of Department at 021 8602707
- Security staff is present in the emergency centre for the safety of patients and staff.

NB! Patients and family members to please bring the following documentation to register for a folder at registration office when visiting the EC:

1. Identity document / card (ID)
2. South African Social Security Association (SASSA) card
3. Proof of address
4. Salary advice
5. Phone number of family members and work place

Thank you so much. Regards the Paarl hospital EC healthcare tea